

**Inverter Grade SCRs**

7294621 POWEREX INC

91D 01801 D T-25-26

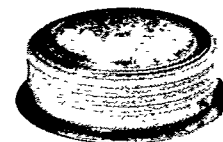
| $I_{T(RMS)}$<br>$T_c = 65^\circ\text{C}$<br>50% Duty<br>Cycle, Half<br>Sine 1KHz<br>(Amps) | $I_{TSM}$<br>(Amps $\times 10^3$ )<br>50 Hz | $I_{TSM}$<br>60 Hz | $I_{DRM}/I_{RRM}$<br>@ Rated<br>$V_{DRM}/V_{RRM}$<br>and $T_{J(Max)}$<br>(mA) | $I^2t$<br>for<br>Fusing<br>@ 8.3 ms<br>( $A^2\text{sec} \times 10^4$ ) | $V_{DRM}/V_{RRM}$<br>Range<br>(Volts) | $V_{TM}$<br>@ $I_{TM}$<br>$T_J = 25^\circ\text{C}$<br>$I_{TM}$ (Amps) | $V_{TM}$<br>(Volts) | Chip<br>Size<br>(mm) | Junction<br>Temp.<br>Range<br>( $^\circ\text{C}$ ) | $R_{\theta JC}$<br>( $^\circ\text{C/W}$ ) | $t_q(Max)$<br>@ $T_{J(Max)}$<br>( $\mu\text{sec}$ ) |
|--------------------------------------------------------------------------------------------|---------------------------------------------|--------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------|---------------------------------------|-----------------------------------------------------------------------|---------------------|----------------------|----------------------------------------------------|-------------------------------------------|-----------------------------------------------------|
| 1100                                                                                       | 9.1                                         | 10                 | 45                                                                            | 41.6                                                                   | 100-1200                              | 1500                                                                  | 1.75                | 38                   | -40 to 125                                         | .037                                      | 25-60                                               |
| 1100                                                                                       | 10.9                                        | 12                 | 45                                                                            | 59.8                                                                   | 100-600                               | 2000                                                                  | 2.5                 | 40                   | -40 to 125                                         | .04                                       | 10                                                  |
| 1100                                                                                       | 10.9                                        | 12                 | 45                                                                            | 59.8                                                                   | 100-700                               | 2000                                                                  | 2.5                 | 40                   | -40 to 125                                         | .04                                       | 20                                                  |
| 1100                                                                                       | 8.2                                         | 9.0                | 45                                                                            | 30                                                                     | 1000-1800                             | 1500                                                                  | 2.0                 | 38                   | -40 to 125                                         | .037                                      | 50-80                                               |
| 1150                                                                                       | 9.1                                         | 10                 | 45                                                                            | 41.5                                                                   | 500-1400                              | 2000                                                                  | 1.95                | 40                   | -40 to 125                                         | .04                                       | 40                                                  |
| 1200                                                                                       | 15.5                                        | 17                 | 60                                                                            | 120                                                                    | 600-1200                              | 1500                                                                  | 1.85                | 50                   | -40 to 125                                         | .023                                      | 40-100                                              |
| 1250                                                                                       | 14.6                                        | 16                 | 80                                                                            | 100                                                                    | 800-1200                              | 2500                                                                  | 2.2+                | 53                   | -40 to 125                                         | .03                                       | 15                                                  |
| 1700                                                                                       | 18.2                                        | 20                 | 60                                                                            | 166                                                                    | 1500-2000                             | 1000                                                                  | 1.45                | 50                   | -40 to 125                                         | .023                                      | 50                                                  |
| 1700                                                                                       | 11.8                                        | 13                 | 60                                                                            | 70.1                                                                   | 1500-1800                             | 1500                                                                  | 1.45                | 50                   | -40 to 125                                         | .023                                      | 60                                                  |
| 1750                                                                                       | 17                                          | 18.7               | 80                                                                            | 145                                                                    | 500-1400                              | 3000                                                                  | 1.96                | 50                   | -40 to 125                                         | .025                                      | 40                                                  |
| 2000                                                                                       | 14.6                                        | 16                 | 50                                                                            | 106                                                                    | 500-1400                              | 3000                                                                  | 2.6                 | 50                   | -40 to 125                                         | .025                                      | 25                                                  |
| 2300                                                                                       | 20.5                                        | 22.5               | 90                                                                            | 211                                                                    | 600-1800                              | 3000                                                                  | 1.9                 | 67                   | -40 to 125                                         | .018                                      | 40-60                                               |
| 2360                                                                                       | 27.3                                        | 30                 | 120                                                                           | 374                                                                    | 800-1200                              | 4500                                                                  | 2.1                 | —                    | -40 to 125                                         | .017                                      | 30                                                  |
| 2360                                                                                       | 27.3                                        | 30                 | 120                                                                           | 374                                                                    | 800-1200                              | 4500                                                                  | 2.1                 | —                    | -40 to 125                                         | .017                                      | 20                                                  |
| 200 @<br>$T_J = 125^\circ\text{C}$                                                         | —                                           | 2.5 $\times$       | 15/25                                                                         | 3.75                                                                   | 600-1000<br>25 to 175                 | 2500                                                                  | 10                  | 23                   | -40 to 125                                         | .095                                      | 250<br>(typical)                                    |

**Asymmetric SCRs**

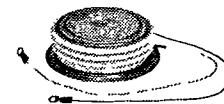
|     |      |      |         |      |             |      |      |    |            |      |    |
|-----|------|------|---------|------|-------------|------|------|----|------------|------|----|
| 260 | 1700 | 1800 | 20/1000 | 1.34 | 500-1400/10 | 500  | 2.6  | 18 | -40 to 125 | .135 | 15 |
| 260 | 1700 | 1800 | 20/1000 | 1.34 | 500-1400/10 | 500  | 2.6  | 18 | -40 to 125 | .135 | 20 |
| 550 | 3900 | 4100 | 40      | 7.0  | 600-1400/10 | 1500 | 2.85 | 22 | -40 to 125 | .095 | 15 |
| 550 | 3900 | 4100 | 40      | 7.0  | 600-1400/10 | 1500 | 2.85 | 22 | -40 to 125 | .095 | 20 |
| 850 | 7.3  | 8    | 60/1000 | 26.6 | 800-1400/15 | 3000 | 2.5  | 30 | -40 to 125 | .06  | 15 |
| 850 | 7.3  | 8    | 60/1000 | 26.6 | 800-1400/15 | 3000 | 2.5  | 30 | -40 to 125 | .06  | 20 |
| 950 | 9.1  | 10   | 60/1000 | 41.5 | 600-1400/10 | 3000 | 2.5  | 30 | -40 to 125 | .045 | 15 |
| 950 | 9.1  | 10   | 60/1000 | 41.5 | 600-1400/10 | 3000 | 2.5  | 30 | -40 to 125 | .045 | 20 |

\* =  $25^\circ\text{C}$  Value     $\times$  = p.w. equals  $3\mu\text{sec}$      $^\circ$  = Tentative Specifications    + = Rating at  $T_{J(Max)}$   
 Note 1 = Reverse Blocking Diode Thyristor

| Qrr(Max)<br>@<br>T <sub>J</sub> =25°C<br>(μcoul) | Min<br>di/dt<br>Repetitive<br>on-State<br>(A/μsec) | Min<br>Critical<br>dv/dt<br>@ T <sub>J</sub> (Max)<br>(V/μsec) | Max<br>V <sub>GT</sub><br>(V) | Max<br>I <sub>GT</sub><br>(mA) | PACKAGE INFORMATION                   |              |                      |               |
|--------------------------------------------------|----------------------------------------------------|----------------------------------------------------------------|-------------------------------|--------------------------------|---------------------------------------|--------------|----------------------|---------------|
|                                                  |                                                    |                                                                |                               |                                | Max<br>Mounting<br>Force or<br>Torque | STYLE        | Outline              | TYPE NO.      |
| 200                                              | 500                                                | 400                                                            | 3*                            | 200*                           | 3500 lbs<br>15.6 KN                   | Press<br>Pak | T82                  | T82F __ 75    |
| 30                                               | 500                                                | 200                                                            | 5                             | 400                            | 3500 lbs<br>15.6 KN                   | Press<br>Pak | TO-200AC             | C444          |
| 30                                               | 500                                                | 200                                                            | 5                             | 400                            | 3500 lbs<br>15.6 KN                   | Press<br>Pak | TO-200AC             | C445          |
| 125                                              | 400                                                | 400                                                            | 3*                            | 200*                           | 4000 lbs<br>17.8 KN                   | Press<br>Pak | T82                  | T82F __ 68    |
| 250                                              | 500                                                | 400                                                            | 5                             | 350                            | 3500 lbs<br>15.6 KN                   | Press<br>Pak | TO-200AC             | C648          |
| —                                                | 600                                                | 400                                                            | 3*                            | 300*                           | 5500 lbs<br>24.5 KN                   | Press<br>Pak | T9G                  | T9GH __ 11    |
| —                                                | 1000                                               | 300                                                            | 3*                            | 350*                           | 7260 lbs<br>32.4 KN                   | Press<br>Pak | 21 × 92<br>mm        | FT1000CY      |
| 700                                              | 200                                                | 500                                                            | 5                             | 120*<br>Typical                | 6000 lbs<br>26.8 KN                   | Press<br>Pak | Modified<br>TO-200AC | °C712         |
| —                                                | 200                                                | 400                                                            | 5                             | 120*<br>Typical                | 6000 lbs<br>26.8 KN                   | Press<br>Pak | Modified<br>TO-200AC | °C712-1       |
| 300                                              | 500                                                | 400                                                            | 5                             | 200*                           | 6000 lbs<br>26.8 KN                   | Press<br>Pak | Modified<br>TO-200AC | C457          |
| 400                                              | 500                                                | 400                                                            | 5                             | 200*                           | 6000 lbs<br>26.8 KN                   | Press<br>Pak | Modified<br>TO-200AC | C458          |
| —                                                | 300                                                | 800                                                            | 3*                            | 300*                           | 11,000 lbs<br>49 KN                   | Press<br>Pak | TA2                  | TA2F __ 14    |
| —                                                | 1000                                               | 200                                                            | 3*                            | 350*                           | 7260 lbs<br>32.4 KN                   | Press<br>Pak | 21 × 102<br>mm       | °FT1500EX     |
| —                                                | 1000                                               | 200                                                            | 3*                            | 350*                           | 7260 lbs<br>32.4 KN                   | Press<br>Pak | 21 × 102<br>mm       | °FT1500EY     |
| —                                                | 2000/3000                                          | 20                                                             | V <sub>DRM</sub><br>+ 150     | 7000<br>Typical                | 1400 lbs<br>6.2 KN                    | Press<br>Pak | T62                  | T62R (Note 1) |
| —                                                | 500                                                | 400                                                            | 5                             | 400                            | 800 lbs<br>3.56 KN                    | Press<br>Pak | TO-200AB             | CA358-1       |
| —                                                | 500                                                | 400                                                            | 5                             | 400                            | 800 lbs<br>3.56 KN                    | Press<br>Pak | TO-200AB             | CA358-2       |
| —                                                | 500                                                | 400-600                                                        | 5                             | 500                            | 800 lbs<br>3.56 KN                    | Press<br>Pak | TO-200AB             | CA383-1       |
| —                                                | 500                                                | 400-600                                                        | 5                             | 500                            | 800 lbs<br>3.56 KN                    | Press<br>Pak | TO-200AB             | CA383-2       |
| —                                                | 500                                                | 400-600                                                        | 3                             | 400                            | 2500 lbs<br>11.1 KN                   | Press<br>Pak | TO-200AC             | CA398-1       |
| —                                                | 500                                                | 400-600                                                        | 3                             | 400                            | 2500 lbs<br>11.1 KN                   | Press<br>Pak | TO-200AC             | CA398-2       |
| —                                                | 500                                                | 400-600                                                        | 5                             | 500                            | 2500 lbs<br>11.1 KN                   | Press<br>Pak | TO-200AB             | CA438-1       |
| —                                                | 500                                                | 400-600                                                        | 5                             | 500                            | 2500 lbs<br>11.1 KN                   | Press<br>Pak | TO-200AB             | CA438-2       |



JEDEC TO-200AC



TA2



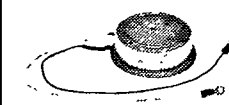
T62



T7S



T72/T82



T9G