

ALTERNATOR DIODE FOR AUTOMOTIVE APPLICATION.

## FEATURES

- Average Forward Current :  $I_O=30A$ .
- Zener Voltage : 23V(Typ.)

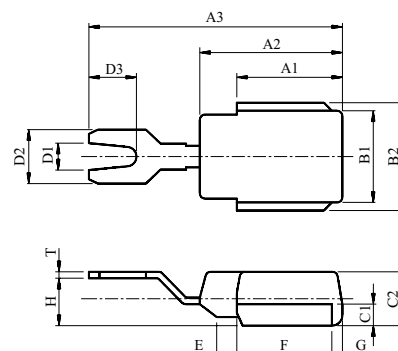
## POLARITY

E30A23VS E30A23VR

(+ Type) (- Type)

MAXIMUM RATING ( $T_a=25^\circ C$ )

| CHARACTERISTIC                        | SYMBOL      | RATING    | UNIT       |
|---------------------------------------|-------------|-----------|------------|
| Average Forward Current               | $I_{F(AV)}$ | 30        | A          |
| Peak 1 Cycle Surge Current            | $I_{FSM}$   | 300(50Hz) | A          |
| Repetitive Peak Reverse Surge Current | $I_{RSM}$   | 30        | A          |
| Transient Peak Reverse Voltage        | $V_{RSM}$   | 17        | V          |
| Peak Reverse Voltage                  | $V_{RM}$    | 17        | V          |
| Junction Temperature                  | $T_j$       | -40 ~ 190 | $^\circ C$ |
| Storage Temperature Range             | $T_{stg}$   | -40 ~ 150 | $^\circ C$ |



| DIM | MILLIMETERS | DIM | MILLIMETERS |
|-----|-------------|-----|-------------|
| A1  | 10.0±0.3    | D2  | 5.0±0.3     |
| A2  | 13.5±0.3    | D3  | 4.5±0.3     |
| A3  | 24.0±0.5    | E   | 1.9±0.3     |
| B1  | 8.5±0.3     | F   | 9.0±0.3     |
| B2  | 10.0±0.3    | G   | 1.0±0.3     |
| C1  | 2.0±0.3     | H   | 4.4±0.5     |
| C2  | 5.0±0.3     | T   | 0.6±0.3     |
| D1  | 2.5±0.3     |     |             |

MR

ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ C$ )

| CHARACTERISTIC                                 | SYMBOL       | TEST CONDITION                                     | MIN. | TYP. | MAX. | UNIT         |
|------------------------------------------------|--------------|----------------------------------------------------|------|------|------|--------------|
| Peak Forward Voltage                           | $V_{FM}$     | $I_{FM}=100A$                                      | -    | -    | 1.2  | V            |
| Zener Voltage                                  | $V_Z$        | $I_Z=10mA$                                         | 21   | 23   | 25   | V            |
| Repetitive Peak Reverse Current                | $I_{RRM}$    | $V_R=V_{RM}$                                       | -    | -    | 10   | $\mu A$      |
| Transient Thermal Resistance                   | $\Delta V_F$ | $I_{FM}=100A$                                      | -    | -    | 100  | mV           |
| Reverse Leakage Current Under High Temperature | HIR          | $T_a=150^\circ C$ , $V_R=V_{RM}$                   | -    | -    | 2.5  | mA           |
| Reverse Recovery Time                          | $t_{rr}$     | $I_F=100mA$ , $-I_R=100mA$ ,<br>90% Recovery Point | -    | -    | 1.5  | $\mu s$      |
| Temperature Resistance                         | $R_{th}$     | DC total junction to case                          | -    | -    | 1.0  | $^\circ C/W$ |

# E30A23VS, E30A23VR

