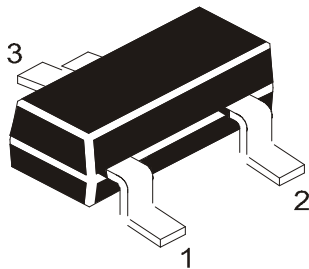


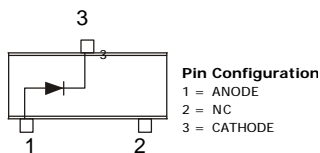
SILICON PLANAR SCHOTTKY DIODES

BAT64, BAT64-04
BAT64-05, BAT64-06

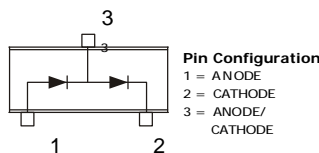
SOT-23
Formed SMD Package



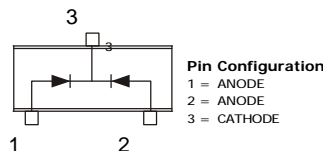
BAT64



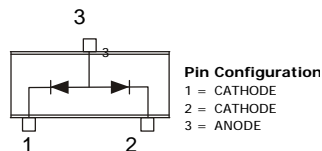
BAT64-04



BAT64-05



BAT64-06



MARKING

BAT64=63

BAT64-04=64

BAT64-05=65

BAT64-06=66

For Low-Loss, Fast Recovery, Meter Protection, Bias Isolation and Clamping Application

ABSOLUTE MAXIMUM RATINGS at $T_a=25^\circ\text{C}$ (per diode)

| DESCRIPTION | SYMBOL | VALUE | UNIT |
|--|-------------|--------------|------------------|
| Reverse Voltage | V_R | 40 | V |
| Forward Current | I_F | 250 | mA |
| Surge Forward Current $t=10\text{ms}$ | I_{FSM} | 800 | mA |
| Average Forward Current (50/60Hz, sinus) | $I_{F(AV)}$ | 120 | mA |
| Power Dissipation | P_D | | |
| BAT64 $T_s \leq 86^\circ\text{C}$ | | 250 | mW |
| BAT64-04, BAT64-06 $T_s \leq 61^\circ\text{C}$ | | 250 | mW |
| BAT64-05 $T_s \leq 36^\circ\text{C}$ | | 250 | mW |
| Storage Temperature Range | T_{stg} | - 55 to +150 | $^\circ\text{C}$ |
| Junction Temperature | T_j | 150 | $^\circ\text{C}$ |

THERMAL RESISTANCE

| Junction to Soldering Point | $*R_{th(j-s)}$ | | |
|-----------------------------|----------------|-----|-----|
| BAT64 | | 255 | K/W |
| BAT64-04, BAT64-06 | | 355 | K/W |
| BAT64-05 | | 455 | K/W |

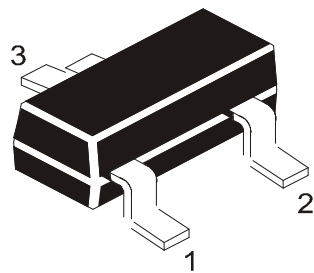
*** $R_{th(j-s)}$ For calculation of $R_{th(j-a)}$ please refer to Application Note Thermal Resistance**

BAT64_06REV081105E

SILICON PLANAR SCHOTTKY DIODES

BAT64, BAT64-04
BAT64-05, BAT64-06

SOT-23
Formed SMD Package

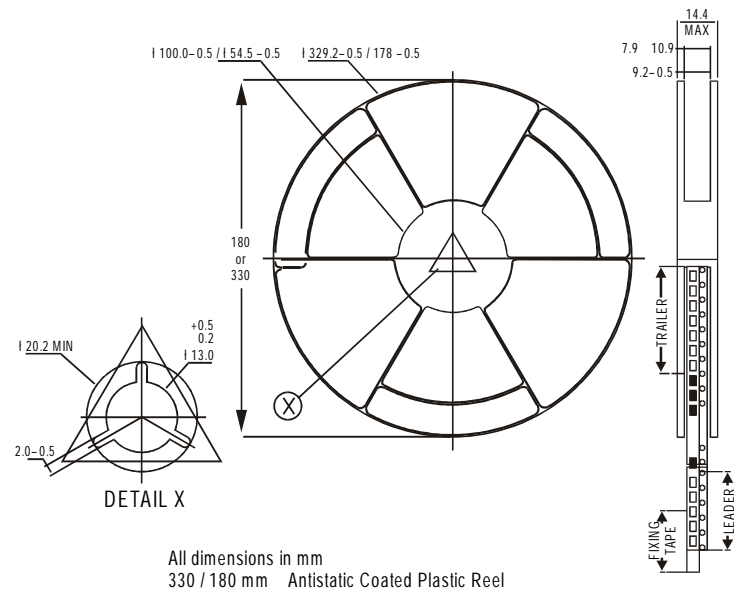


ELECTRICAL CHARACTERISTICS (T_a=25° C unless specified otherwise) (per diode)

| DESCRIPTION | SYMBOL | TEST CONDITION | MIN | MAX | UNIT |
|---------------------------|-------------------|--|------------------------------|------------------------------|------------------|
| Reverse Breakdown Voltage | V _(BR) | I _(BR) =10μA | 40 | | V |
| Reverse Current | I _R | V _R =30V V _R =30, T _a =85°C | | 2 200 | μA μA |
| Forward Voltage | V _F | I _F =1mA I _F =10mA I _F =30mA I _F =100mA | 0.25 0.31 0.37 0.50 | 0.32 0.43 0.52 0.75 | V V V V |
| Diode Capacitance | C _T | V _R =1V, f=1MHz | | 7.00 | pF |
| Reverse Recovery Time | t _{rr} | I _F =10mA, I _R =10mA, measured I _R =1mA, R _L =100Ω | | 5.00 | ns |

BAT64_06REV081105E

SOT-23 Package Reel Information
Reel specifications for Packing (13"/7" reels)



- | NOTES: | | 8mm Tape
Size of Reel
330 mm (13")
10,000 Pcs | 8mm Tape
Size of Reel
180 mm (7")
3,000 Pcs |
|----------------|--|--|--|
| No. of Devices | | | |
- The bandolier of 330 mm reel contains at least 10,000 devices.
 - The bandolier of 180 mm reel contains at least 3,000 devices.
 - No more than 0.5% missing devices / reel. 50 empty compartments for 330 mm reel. 15 empty compartments for 180 mm reel.
 - Three consecutive empty places might be found provided this gap is followed by 6 consecutive devices.
 - The carrier tape (leader) starts with at least 75 empty positions (equivalent to 330 mm). In order to fix the carrier tape a self adhesive tape of 20 to 50 mm is applied. At the end of the bandolier at least 40 empty positions (equivalent to 160 mm) are there.

Packing Detail

| PACKAGE | STANDARD PACK | | INNER CARTON BOX | | OUTER CARTON BOX | | |
|------------|---------------|----------------|------------------|-------|-------------------|--------|--------|
| | Details | Net Weight/Qty | Size | Qty | Size | Qty | Gr Wt |
| SOT-23 T&R | 3K/reel | 136 gm/3K pcs | 3" x 7.5" x 7.5" | 12.0K | 17" x 15" x 13.5" | 192.0K | 12 kgs |
| | | | 9" x 9" x 9" | 51.0K | 19" x 19" x 19" | 408.0K | 28 kgs |
| | 10K/reel | 415 gm/10K pcs | 13" x 13" x 0.5" | 10.0K | 17" x 15" x 13.5" | 300.0K | 16 kgs |

Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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