



BAT750

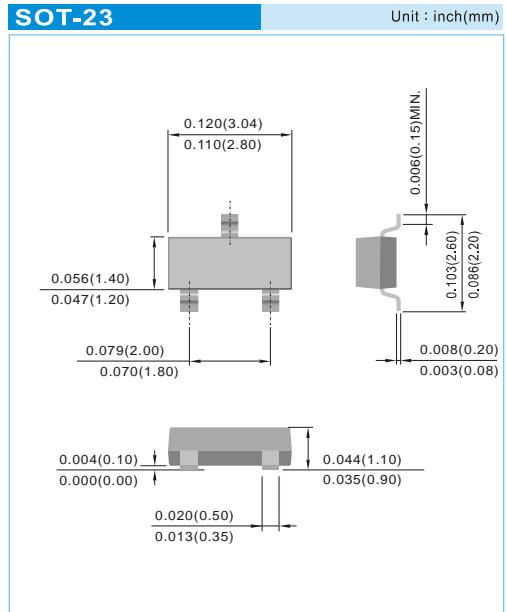
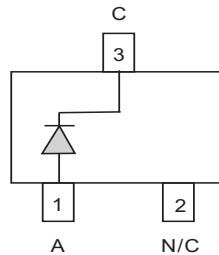
SCHOTTKY BARRIER DIODE

FEATURES

- Low V_F
- High current capability
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Green molding compound as per IEC61249 Std. . (Halogen Free)

MECHANICAL DATA

- Case : SOT-23, Plastic
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight : 0.0003 ounces, 0.0084 grams
- Marking : 750



ABSOLUTE MAXIMUM RATINGS

| Parameter | Symbol | Limit | Unit |
|--|-----------------|--------------|--------------|
| Collector reverse voltage | V_R | 40 | V |
| RMS reverse voltage | $V_{R(RMS)}$ | 28 | V |
| Forward current (continuous) | I_F | 750 | mA |
| Forward voltage@ $I_F=750mA$ | V_F | 490 | mV |
| Average peak forward current; DC=50% | I_{FAV} | 1500 | mA |
| Non repetitive forward current $t_{\leq 100\mu s}$ $t_{\leq 8.3ms}$ | I_{FSM} | 12 5.5 | A |
| Power dissipation@ $T_A=25^\circ C$ | P_{TOT} | 350 | mW |
| Typical thermal resistance, junction to ambient air | $R_{\theta JA}$ | 286 | $^\circ C/W$ |
| Storage temperature range | T_{STG} | -55 to + 150 | $^\circ C$ |
| Junction temperature | T_J | 125 | $^\circ C$ |



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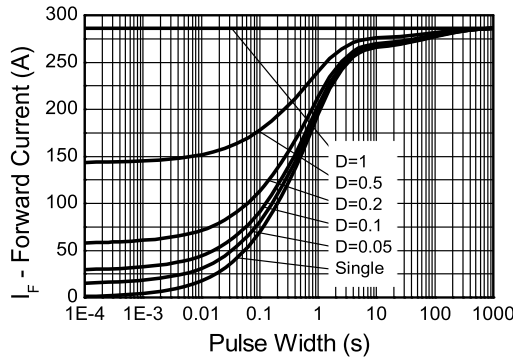
ELECTRICAL CHARACTERISTICS (@T_A=25°C unless otherwise stated)

| Parameter | Symbol | Conditions | Min. | Typ. | Max. | Units |
|--------------------------------|--------------------|-------------------------------|------|------|------|-------|
| Reverse breakdown voltage | V _{(BR)R} | I _R =300μA | 40 | 60 | - | V |
| Forward voltage(Note 1) | V _F | I _F =50mA | - | 250 | 280 | mV |
| | | I _F =100mA | - | 270 | 310 | |
| | | I _F =250mA | - | 310 | 350 | |
| | | I _F =500mA | - | 350 | 420 | |
| | | I _F =750mA | - | 390 | 490 | |
| | | I _F =1000mA | - | 420 | 540 | |
| Reverse current | I _R | V _R =30V | - | 50 | 100 | μA |
| Off state junction capacitance | C _J | V _R =25V, f=1.0MHz | - | 18 | - | pF |

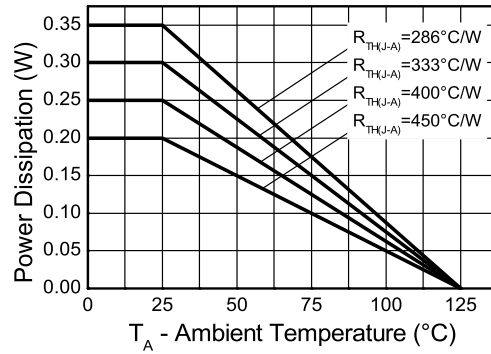
Note : 1.Measured under pulsed conditions. Pulse width = 300μ duty cycle < 2%



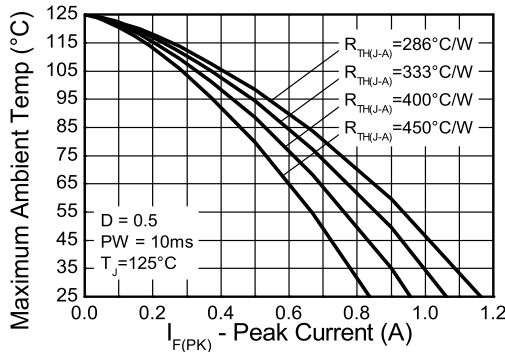
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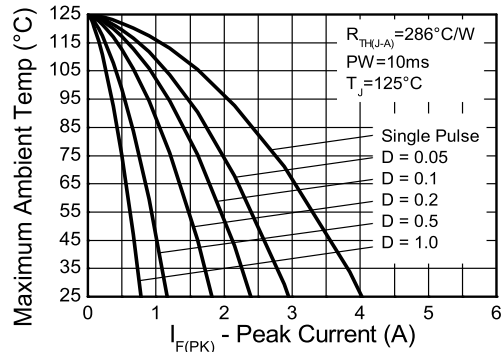
Transient Thermal Impedance



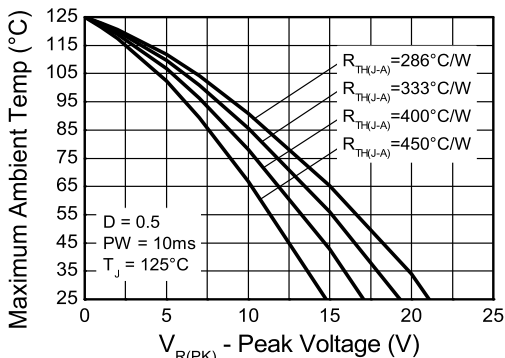
Derating Curves



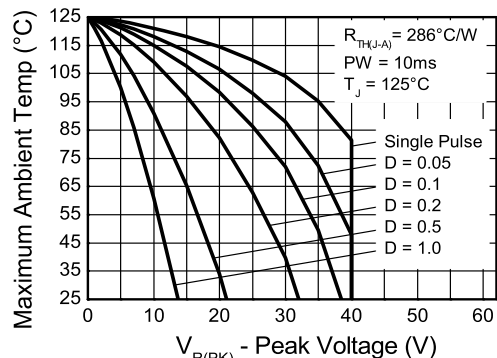
Forward Safe Operating Area



Forward Safe Operating Area



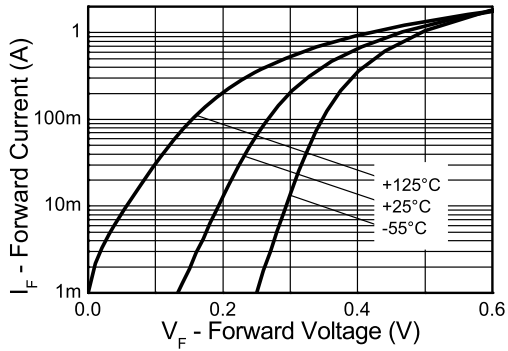
Reverse Safe Operating Area



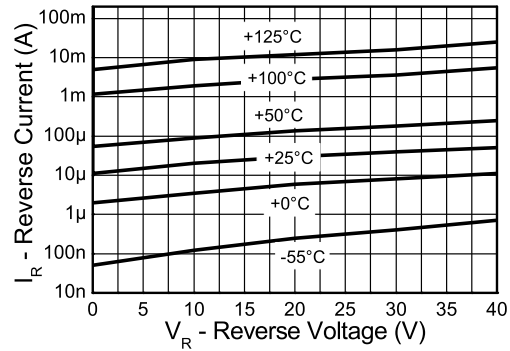
Reverse Safe Operating Area



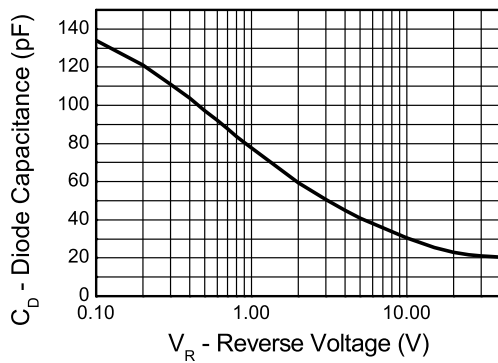
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Typical Forward Characteristics



Typical Reverse Characteristics



Capacitance v Reverse Voltage

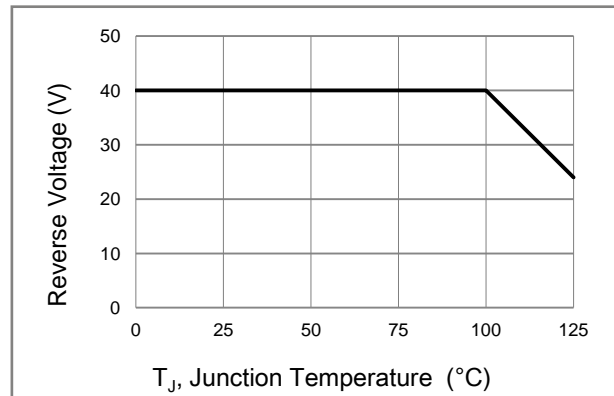


Fig. %\$ Operating Temperature Derating Curve

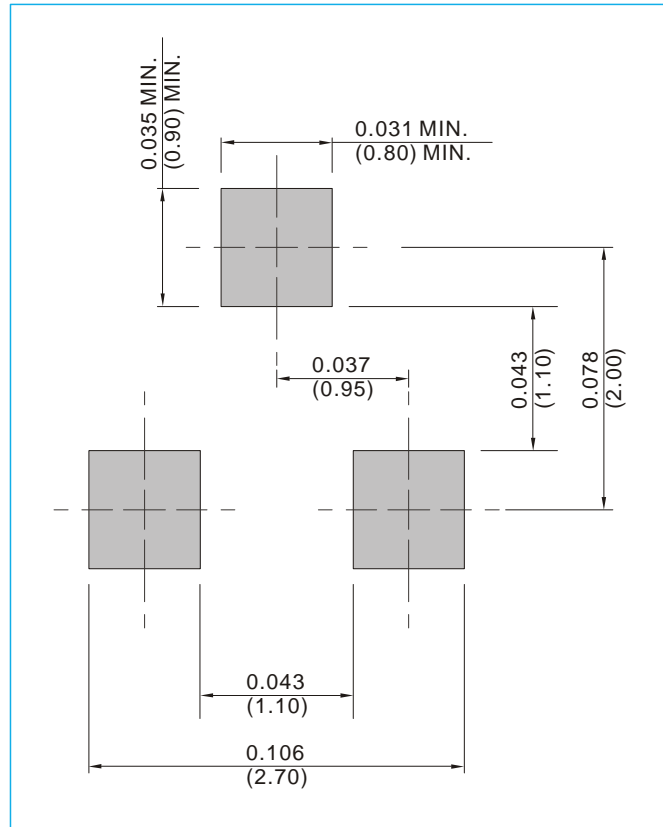


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MOUNTING PAD LAYOUT

SOT-23

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 12K per 13" plastic Reel
 - T/R - 3K per 7" plastic Reel



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Part No_packing code_Version

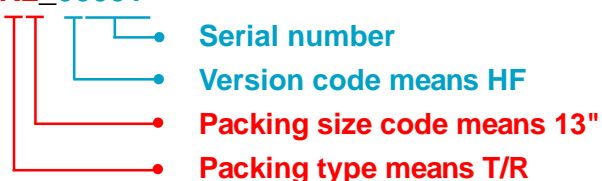
BAT750_R1_00001

BAT750_R2_00001

For example :

RB500V-40_R2_00001

Part No.



| Packing Code XX | | | | Version Code XXXXX | | |
|--------------------------------------|----------------------|----------------------------------|----------------------|---------------------------|----------------------|---------------------------------------|
| Packing type | 1 st Code | Packing size code | 2 nd Code | HF or RoHS | 1 st Code | 2 nd ~5 th Code |
| Tape and Ammunition Box (T/B) | A | N/A | 0 | HF | 0 | serial number |
| Tape and Reel (T/R) | R | 7" | 1 | RoHS | 1 | serial number |
| Bulk Packing (B/P) | B | 13" | 2 | | | |
| Tube Packing (T/P) | T | 26mm | X | | | |
| Tape and Reel (Right Oriented) (TRR) | S | 52mm | Y | | | |
| Tape and Reel (Left Oriented) (TRL) | L | PANASERT T/B CATHODE UP (PBCU) | U | | | |
| FORMING | F | PANASERT T/B CATHODE DOWN (PBCD) | D | | | |



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