



# BAT750

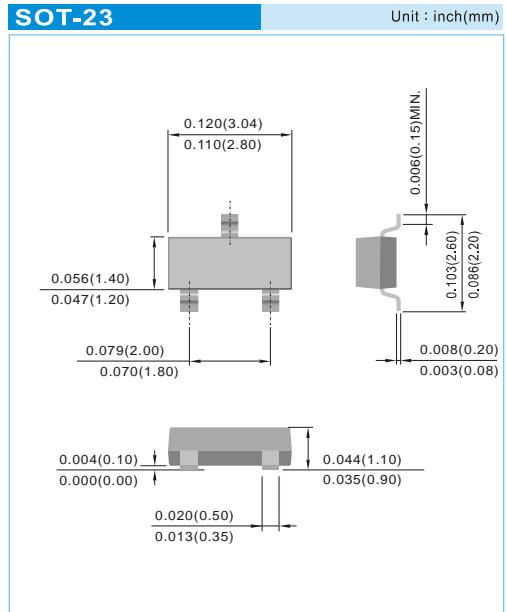
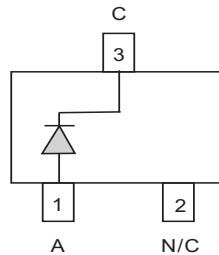
## SCHOTTKY BARRIER DIODE

### 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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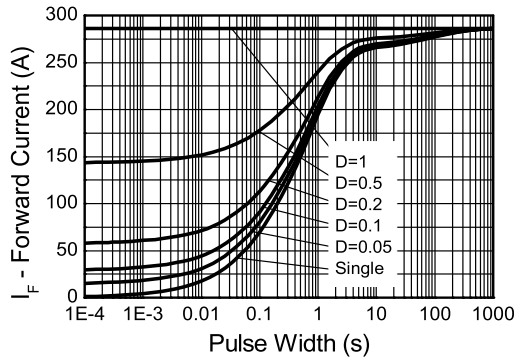
## ELECTRICAL CHARACTERISTICS (@T<sub>A</sub>=25°C unless otherwise stated)

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

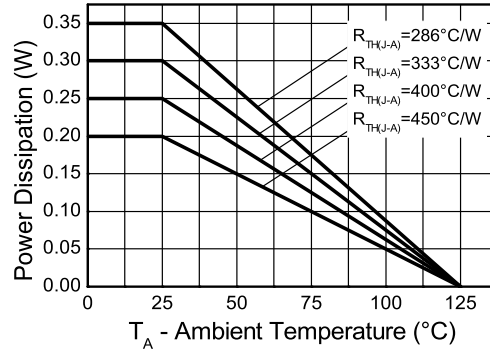
Note : 1. Measured under pulsed conditions. Pulse width = 300μ duty cycle < 2%



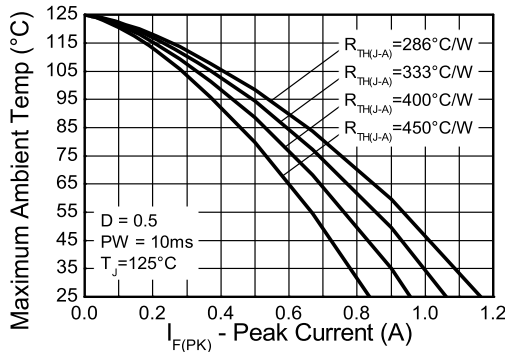
# BAT750



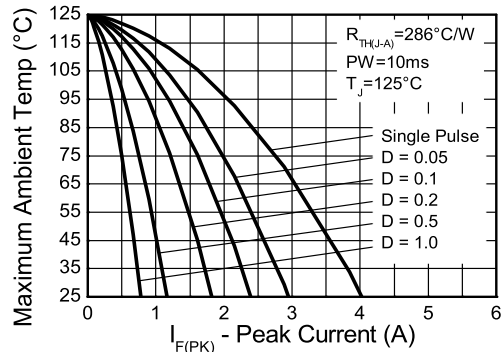
**Transient Thermal Impedance**



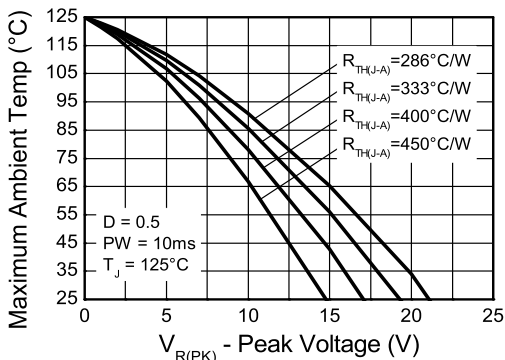
**Derating Curves**



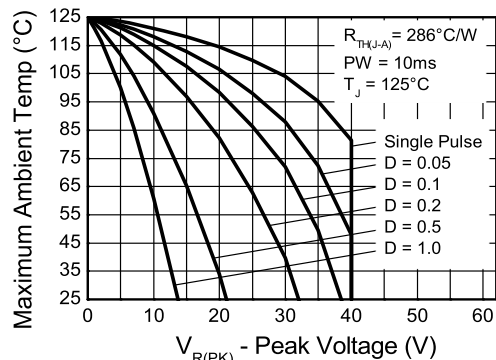
**Forward Safe Operating Area**



**Forward Safe Operating Area**



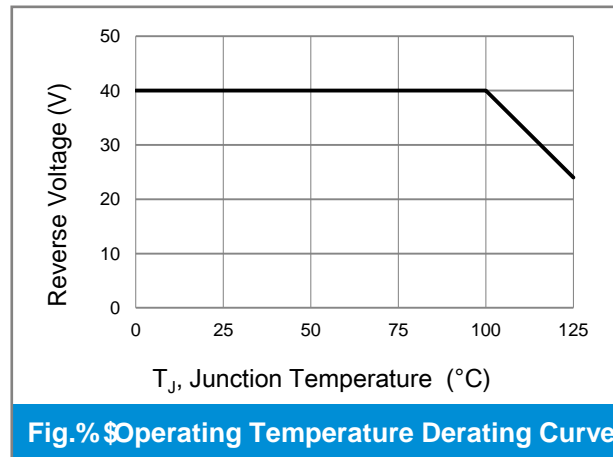
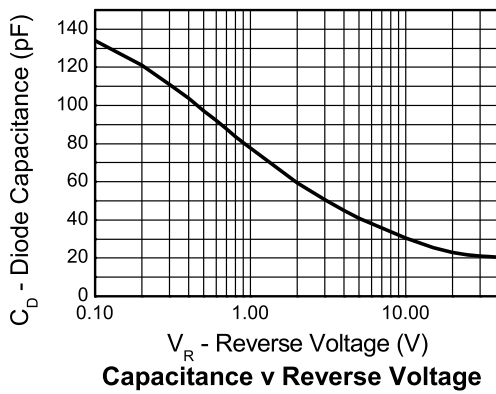
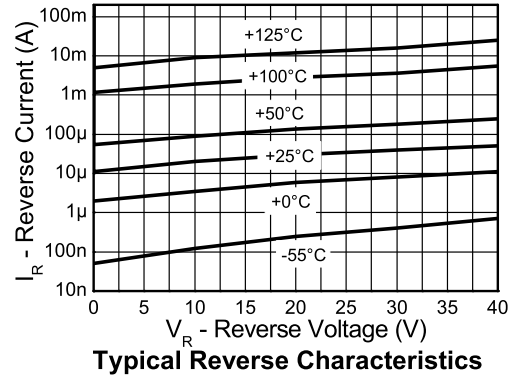
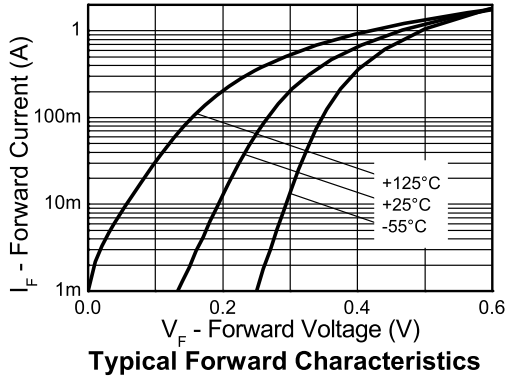
**Reverse Safe Operating Area**



**Reverse Safe Operating Area**



# BAT750



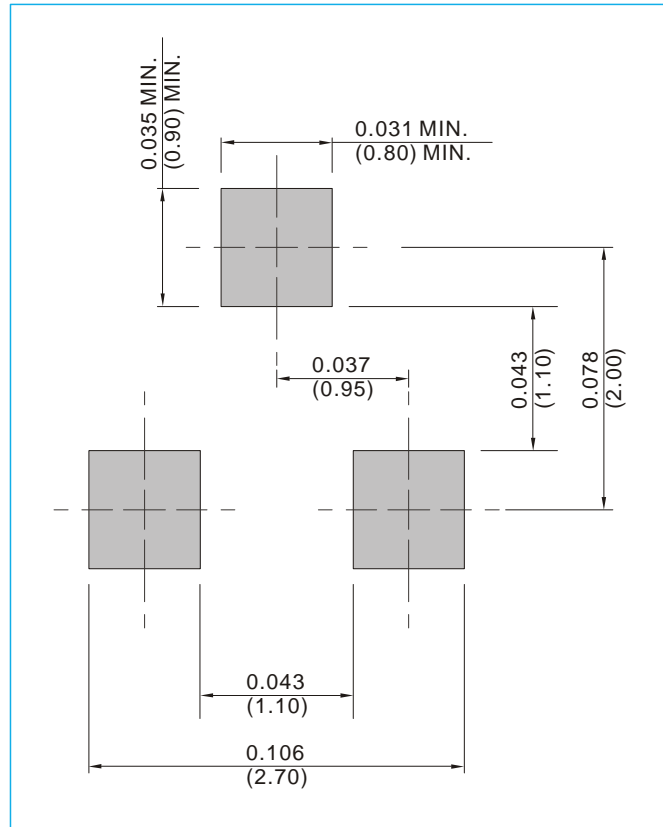


# BAT750

## 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



# BAT750

## Part No\_packing code\_Version

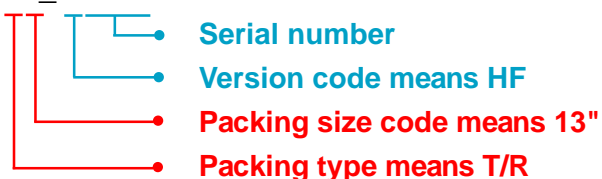
BAT750\_R1\_00001

BAT750\_R2\_00001

For example :

**RB500V-40\_R2\_00001**

Part No.



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



## BAT750

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