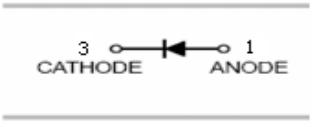
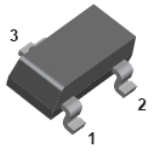
BAT750

Small Signal Schottky Barrier Diode

FEATURES

- High conductance.
- Very low forward voltage drop.
- For use in DC-DC converter,PCMCIA, and mobile telecommunications appilication.





SOT-23

APPLICATIONS

- 0.75 Surface mount schottky barrier rectifier.

ORDERING INFORMATION

Type No.	Marking	Package Code
BAT750	K77	SOT-23

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Characteristic	**Symbol**	**Limits**	**Unit**
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Reverse Voltage	V_{RRM} V_{RWM} V_R	40	V
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Current	I_O	750	mA
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	5.5	A
Power Dissipation	P_d	350	mW
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	286	℃/W
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JC}$	160	℃/W
Operating Junction Temperature Range	T_j	125	℃
Storage Temperature Range	T_{STG}	-40 to +125	℃

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

Characteristic	Symbol	Min	Typ	MAX	UNIT	Test Condition
Reverse Breakdown Voltage	$V_{(BR)R}$	40	45	-	V	I_R=300μA
Forward Voltage	V_F	-	300	340	mV	I_F=50mA
			320	360		I_F=100mA
			360	390		I_F=250mA
			410	440		I_F=500mA
			450	490		I_F=750mA
			480	540		I_F=1000mA
			550	650		I_F=1500mA
Maximum Reverse Current	I_R	-	60	100	μA	V_R=30V
Junction Capacitance	C_j	-	175	-	pF	V_R=0V,f=1.0MHz
		-	25	-		V_R=25V,f=1.0MHz

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

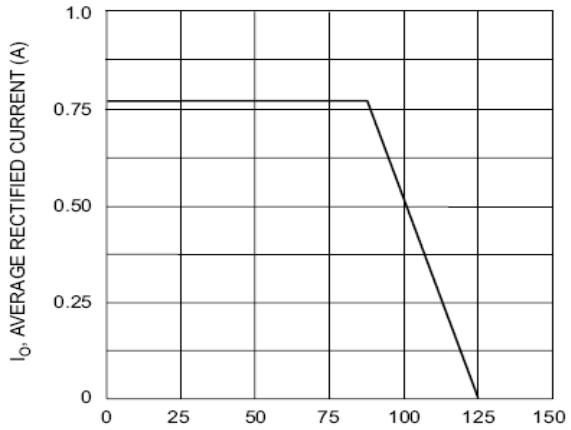

Fig. 1 Forward Current Derating Curve

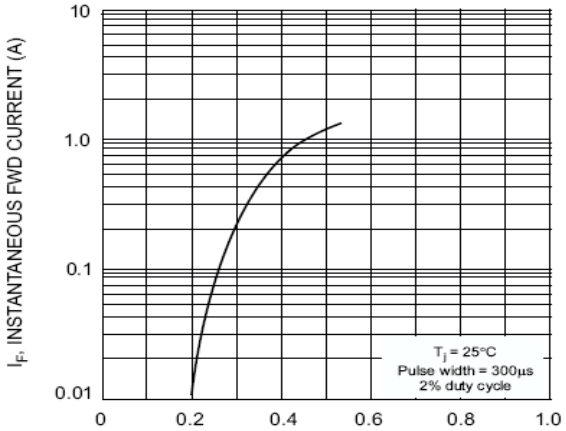

Fig. 2 Typical Forward Characteristics

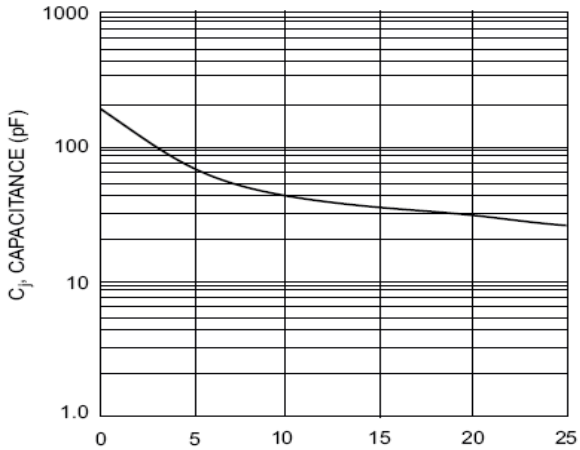

Fig. 3 Typ. Junction Capacitance vs Reverse Voltage

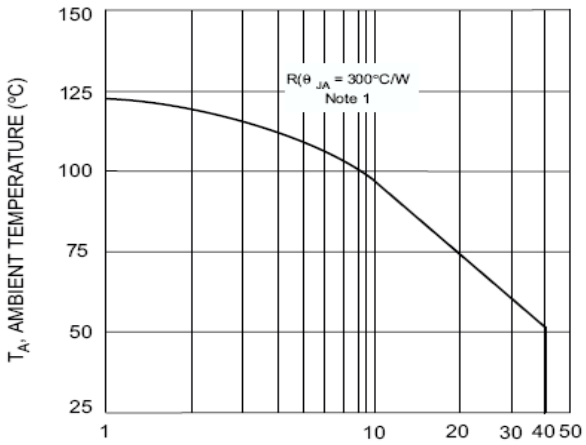

Fig. 4 Typical Safe Operating Area

Note: 1. Assumed application thermal conditions.
$R\theta_{JA}$ varies depending on application.

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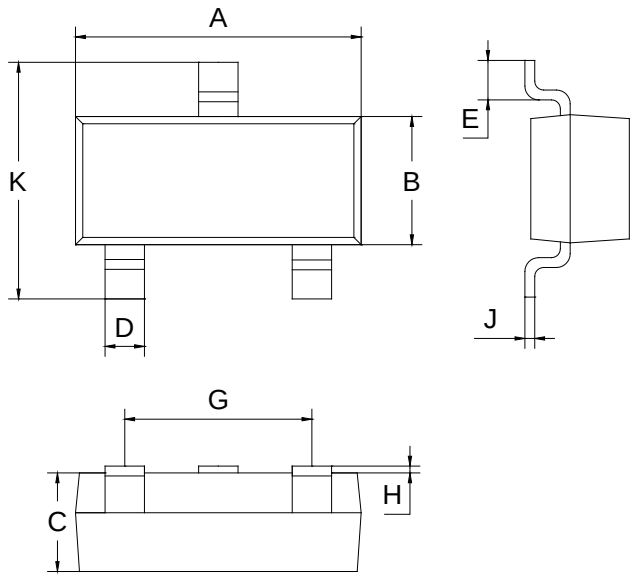
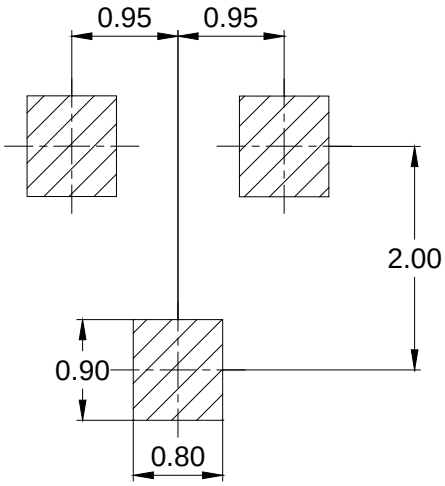
PACKAGE OUTLINE

Plastic surface mounted package SOT-23



SOT-23		
Dim	Min	Max
A	2.70	3.10
B	1.10	1.50
C	0.90	1.10
D	0.30	0.50
E	0.35	0.48
G	1.80	2.00
H	0.02	0.10
J	0.05	0.15
K	2.20	2.60
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit: mm

PACKAGE INFORMATION

Device	Package	Shipping
BAT750	SOT-23	3000 pcs / Tape & Reel