



BAT400D

SURFACE MOUNT SCHOTTKY BARRIER DIODES

VOLTAGE 40 Volt **CURRENT** 500 mA

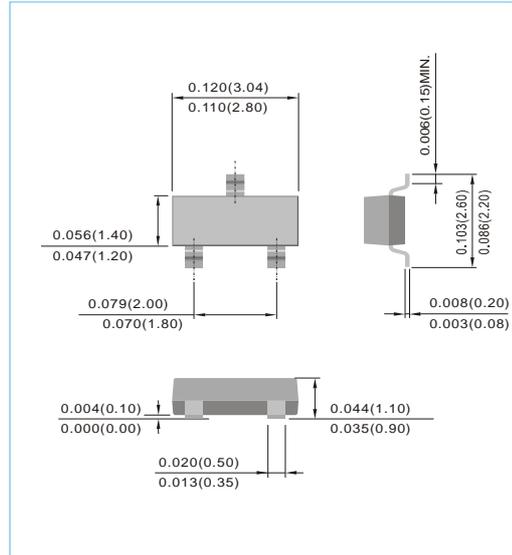
SOT-23 Unit : inch(mm)

FEATURES

- Low Forward voltage Drop
- High Conductance
- 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 Code: KSJ



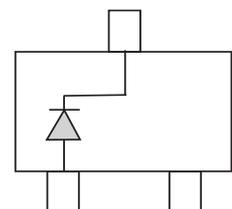
MAXIMUM RATINGS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Characteristic	Symbol	Value	Units
Peak Repetitive Reverse Voltage	V_{RRM}	40	V
Working Peak Reverse Voltage	V_{RWM}		
DC Blocking Voltage	V_R		
RMS Reverse Voltage	$V_{R(RMS)}$	28	V
Average Rectified Current	$I_{F(AV)}$	0.5	A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load	I_{FSM}	5.5	A
Power Dissipation (see figure 1)	P_D	480	mW
Typical Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	286	°C/W
Operation and Storage Temperature Range	T_J, T_{STG}	-40 to +125	°C

NOTE : 1.Short duration pulse test used to minimize self-heating effect.

SINGLE





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ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. For capacitive load, derate current by 20%.

Characteristic	Symbol	Test Condition	Min.	Typ.	Max.	Units
Reverse Breakdown Voltage (Note 1)	$V_{(BR)R}$	$I_R=1mA$	40	-	-	V
Forward Voltage (Note 1)	V_F	$I_F=10mA$ $I_F=500mA$	-	285 480	300 500	mV
Reverse Current (Note 1)	I_R	$V_R=10V$ $V_R=30V$	-	1 2	30 50	μA
Junction Capacitance	C_J	$V_R=0V, f=1MHz$ $V_R=10V, f=1MHz$	-	170 20	-	pF

NOTE : 1.Short duration pulse test used to minimize self-heating effect.



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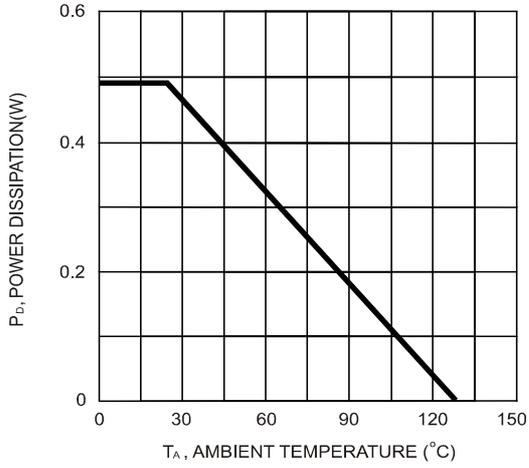


FIG.1 POWER DERATING CURVE

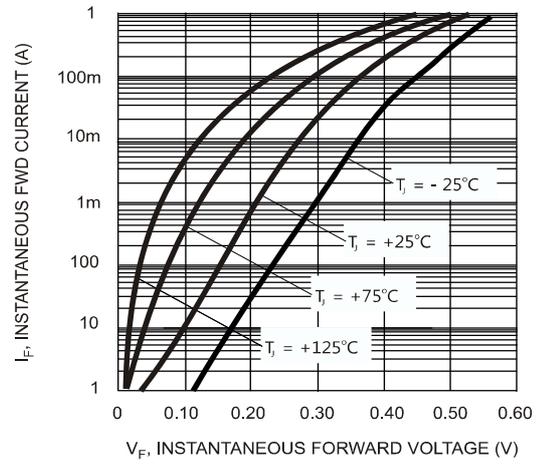


FIG.2 TYPICAL FWD CHARACTERISTICS

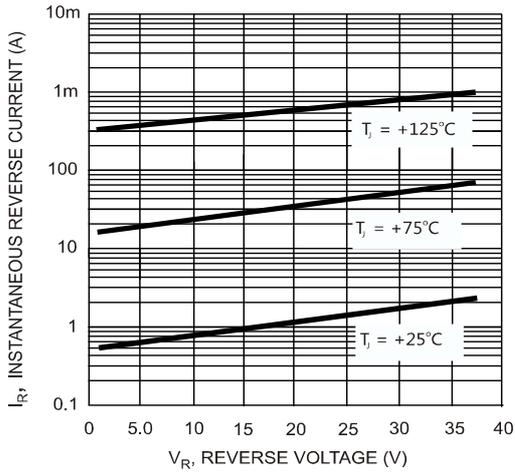


FIG.3 TYPICAL REVERSE CHARACTERISTICS

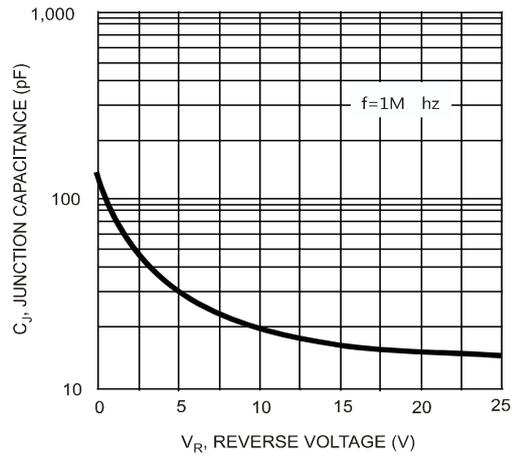


FIG.4 TYPICAL C_J VS. V_R

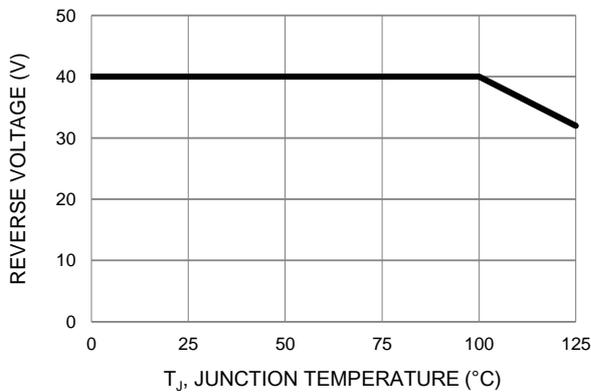


FIG.5 OPERATING TEMPERATURE DERATING CURVE

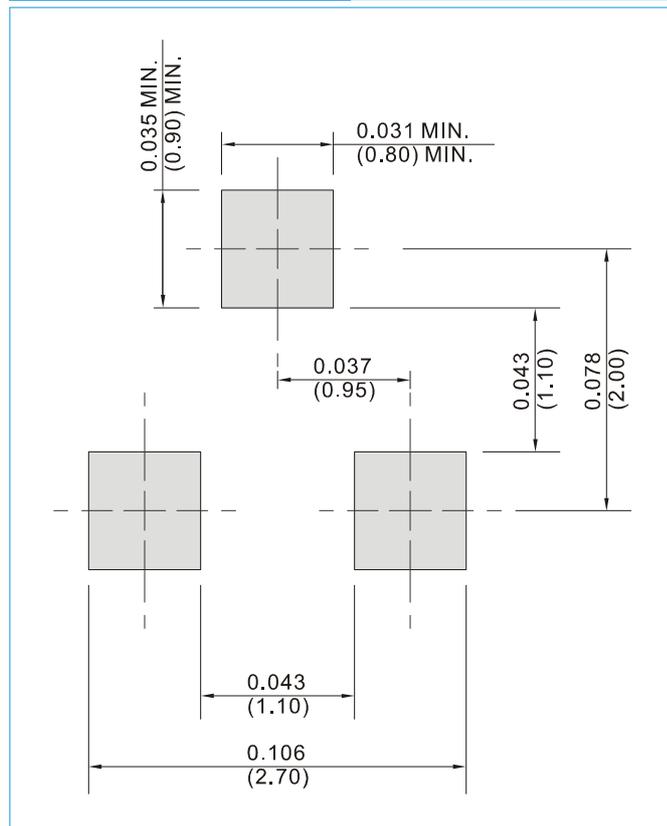


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MOUNTING PAD LAYOUT

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

BAT400D_R1_00001

BAT400D_R2_00001

For example :

RB500V-40_R2_00001



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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