Schottky Barrier Rectifier

Features:

- For Surface Mounted Applications
- Low Profile Package
- Built-In Strain Relief
- Metal Silicon Junction, Majority Carrier Conduction
- High Surge Capability
- Low Power Loss, High Efficiency
- For Use In Low Voltage High Frequency Inverters, Free Wheeling And Polarity Protection Applications
- Guard Ring For Over Voltage Protection
- High Temperature Soldering Guaranteed : 250°C/10 Seconds At Terminals

Mechanical Data

- Case: JEDEC SMB, molded plastic over passivated chip
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Colour band denotes cathode end
- Weight: 0.003oz, 0.093g

Maximum Ratings and Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified

Characteristic	Symbol	B330B-13-F	B340B-13-F	B360B-13-F	Units
Maximum repetitive peak reverse voltage	V_{RRM}	30	40	60	V
Maximum RMS voltage	V_{RWS}	21	28	42	V
Maximum DC blocking voltage	V_{DC}	30	40	50	V
Maximum average forward rectified current at T_L=See Fig. 2 (Note 2)	$I_{F(AV)}$	3			A
Peak forward surge current 8.3ms single half-sine-wave	I_{FSM}	50			A
Maximum instantaneous forward voltage at 3A (Note 1)	V_F	0.5		0.7	V
Maximum DC reverse current at T_A = 25°C at rated DC blocking voltage at T_A = 100°C (Note 1)	I_R	0.5 20			mA
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	50 20			°C/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +125			°C

Notes:

(1) Pulse test: 300μS pulse width,1%duty cycle.

(2) PCB mounted with 0.55" × 0.55" (14 × 14mm^2) copper pad areas.

FIG.1 – FORWARD DERATING CURVE

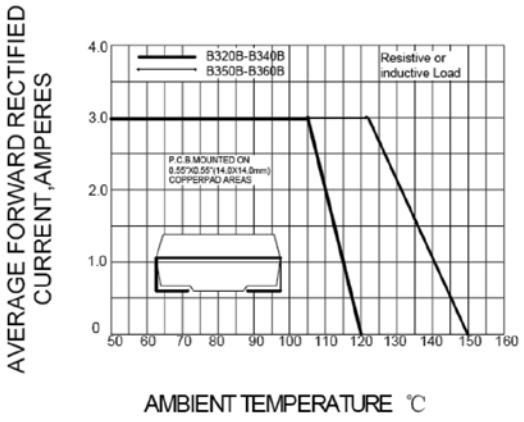


FIG.2– PEAK FORWARD SURGE CURRENT

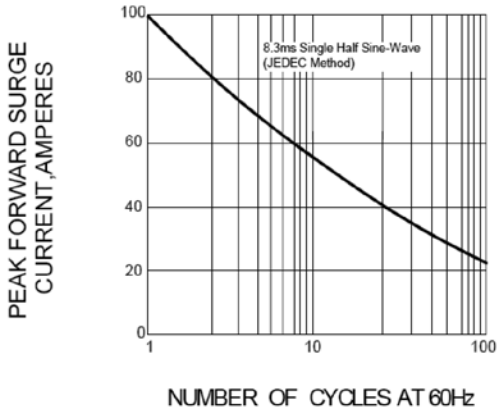


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

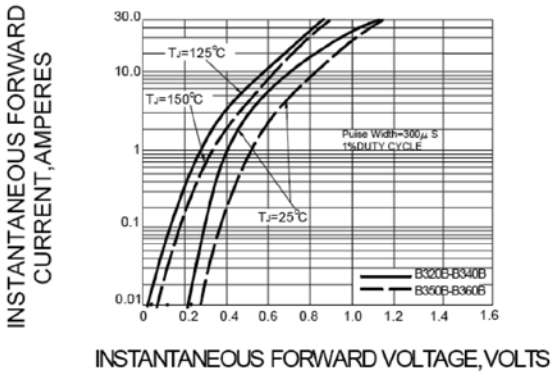


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

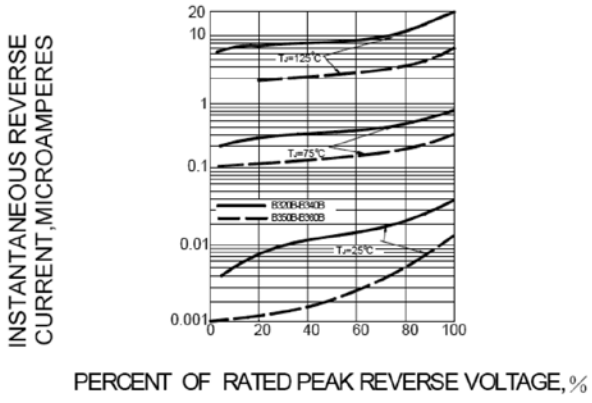


FIG.5-TYPICAL JUNCTION CAPACITANCE

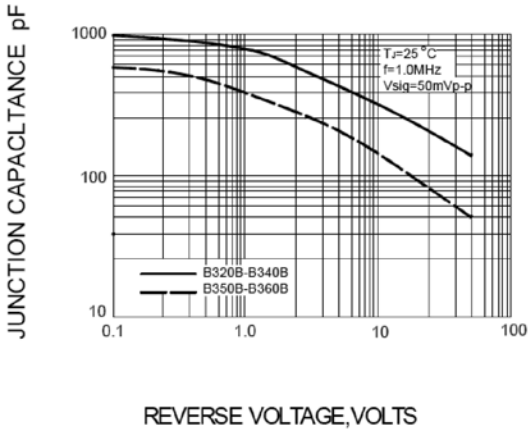
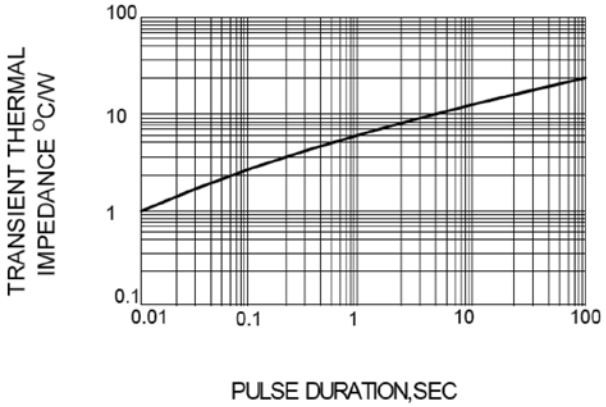
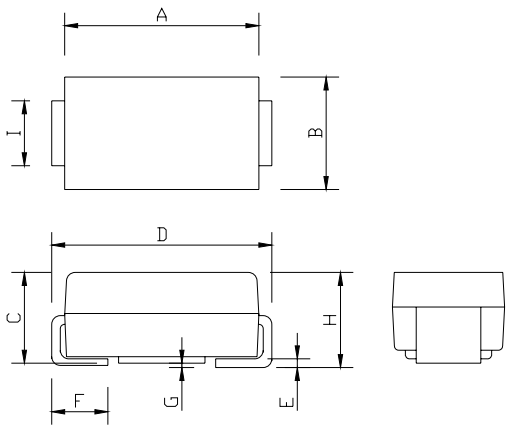


FIG.6– TYPICAL TRANSIENT THERMAL IMPEDANCE



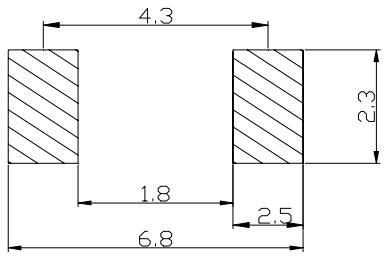
Package Outline Dimensions



SMB		
Dim.	**Min.**	**Max.**
A	4.3	4.7
B	3.3	3.7
C	2	2.3
D	5.05	5.55
E	0.2 Typ.	
F	0.95	1.55
G	0.2 Max.	
H	2.1	2.5
I	1.85	2.15

Dimensions : Millimetres

Soldering Footprint



Dimensions : Millimetres

Package Information

Device	Package	Shipping
B330B -13-F B340B -13-F B360B -13-F	DO-214AA(SMB)	3,000 / Tape & Reel

Part Number Table

Description	Part Number
Schottky Barrier Rectifier	B330B-13-F
	B340B-13-F
	B360B-13-F