

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 $T_A = 25^\circ\text{C}$ at rated DC blocking voltage at $T_A = 100^\circ\text{C}$ (Note 1)	I_R	0.5 20			mA
Typical thermal resistance (Note 2)	$R_{\theta JA}$ $R_{\theta JL}$	50 20			$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +125			$^\circ\text{C}$

Notes:

- (1) Pulse test: 300 μs pulse width, 1% duty cycle.
- (2) PCB mounted with 0.55" \times 0.55" (14 \times 14mm²) copper pad areas.

Schottky Barrier Rectifier

FIG.1 – FORWARD DERATING CURVE

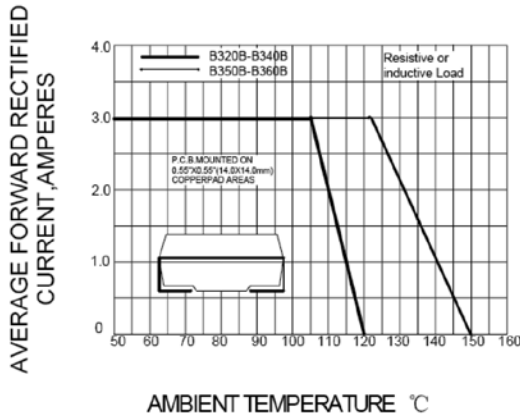


FIG.2– PEAK FORWARD SURGE CURRENT

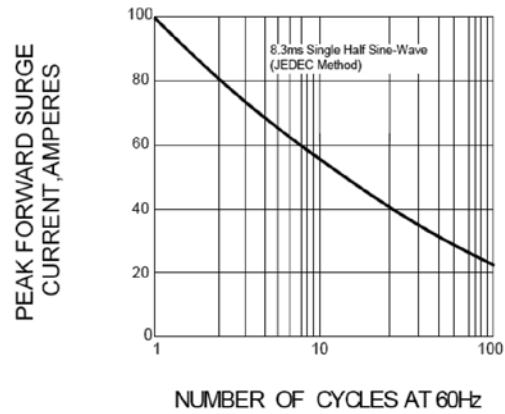


FIG.3 – TYPICAL FORWARD CHARACTERISTICS

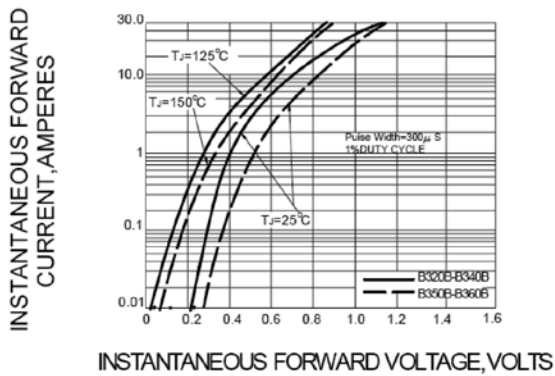


FIG.4 – TYPICAL REVERSE CHARACTERISTICS

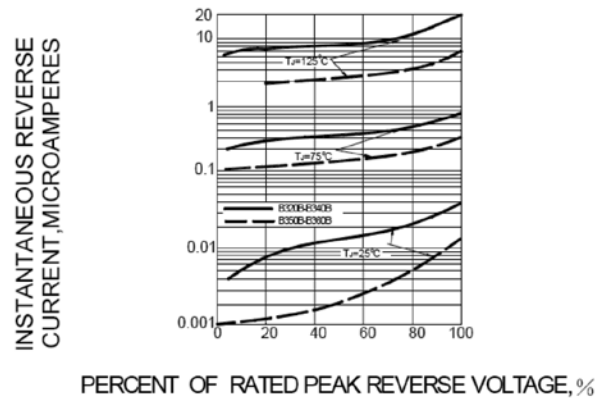


FIG.5-TYPICAL JUNCTION CAPACITANCE

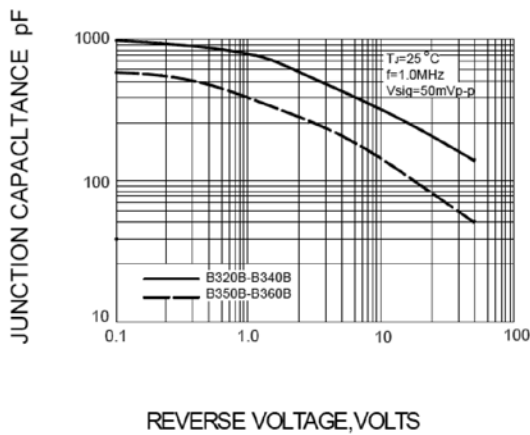
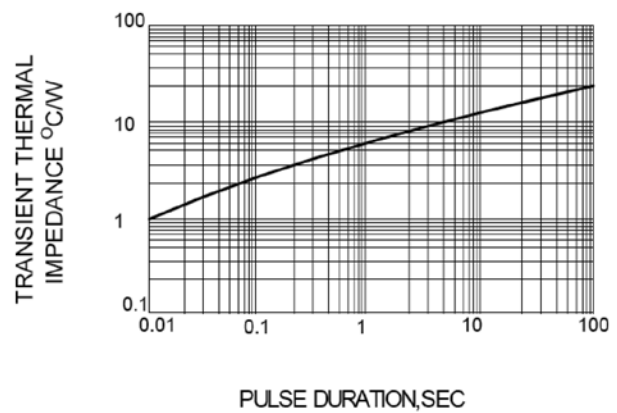
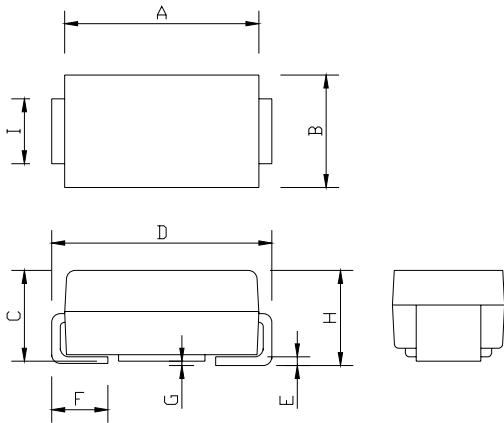


FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE



Schottky Barrier Rectifier

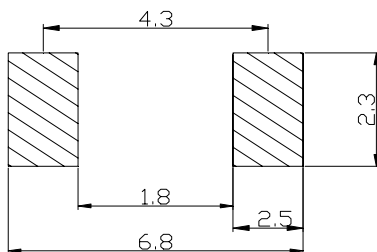
Package Outline Dimensions



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

Important Notice : This data sheet and its contents (the "Information") belong to the members of the Premier Farnell group of companies (the "Group") or are licensed to it. No licence is granted for the use of it other than for information purposes in connection with the products to which it relates. No licence of any intellectual property rights is granted. The Information is subject to change without notice and replaces all data sheets previously supplied. The Information supplied is believed to be accurate but the Group assumes no responsibility for its accuracy or completeness, any error in or omission from it or for any use made of it. Users of this data sheet should check for themselves the Information and the suitability of the products for their purpose and not make any assumptions based on information included or omitted. Liability for loss or damage resulting from any reliance on the Information or use of it (including liability resulting from negligence or where the Group was aware of the possibility of such loss or damage arising) is excluded. This will not operate to limit or restrict the Group's liability for death or personal injury resulting from its negligence. Multicomp is the registered trademark of the Group. © Premier Farnell plc 2012.