



MB34~MB320

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 40 to 200 Volt **CURRENT** 3 Ampere

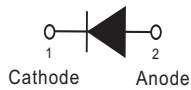
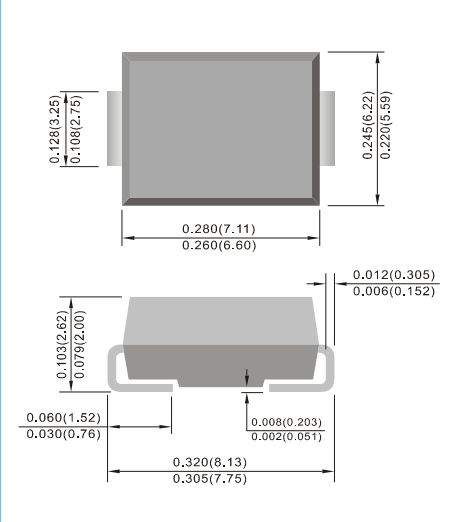
SMC / DO-214AB Unit : inch(mm)

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications in order to optimize board space
- Low power loss, high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounces, 0.2325 grams



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified. Resistive or inductive load.

PARAMETER	SYMBOL	MB34	MB34A	MB35	MB36	MB38	MB39	MB310	MB315	MB320	UNITS
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	V_{RMS}	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current (See figure 1)	$I_{F(AV)}$	3									A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100									A
Maximum Forward Voltage at 3A (Note 1)	V_F	0.7		0.74		0.8		0.9			V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=25^\circ\text{C}$	I_R	0.05									mA
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	I_R	2				1					mA
Typical Junction Capacitance ($V_R=4V, 1\text{MHz}$)	C_J	140									pF
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	15									°C / W
(Note 3)	$R_{\theta JA}$	110									
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55 to +150				-65 to +175					°C

NOTES :

1. Pulse Test with PW =300µsec, 1% Duty Cycle.
2. Mounted on a FR4 PCB, single-sided copper, with 100cm² copper pad area.
3. Mounted on a FR4 PCB, single-sided copper, mini pad.



MB34~MB320

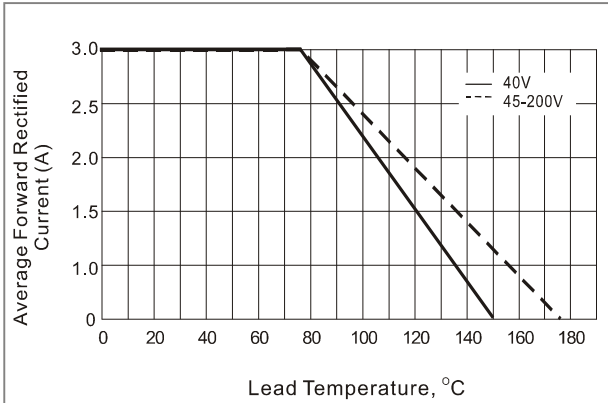


Fig.1 Forward Current Derating Curve

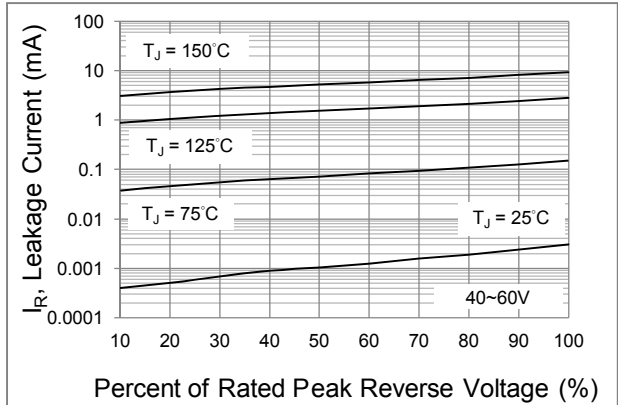


Fig.2 Typical Reverse Characteristics

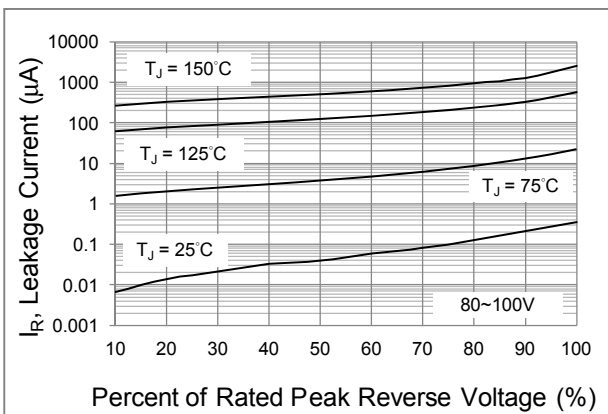


Fig.3 Typical Reverse Characteristics

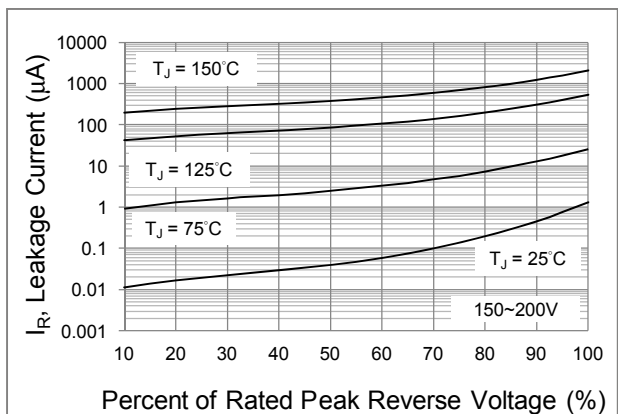


Fig.4 Typical Reverse Characteristics

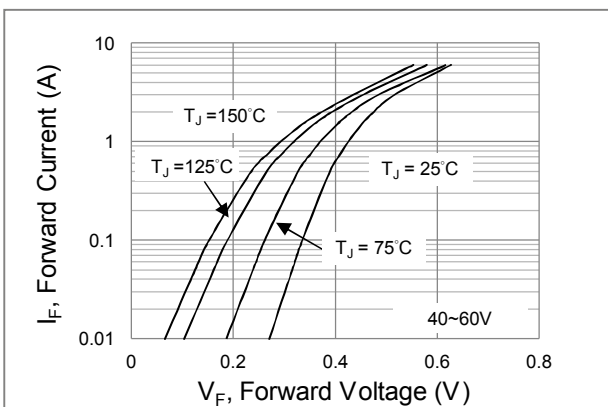


Fig.5 Typical Forward Characteristics

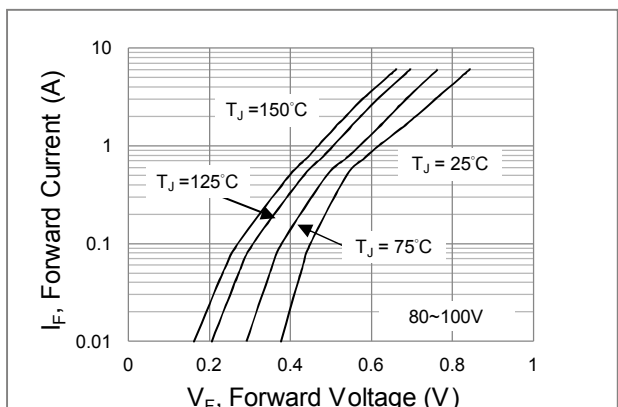


Fig.6 Typical Forward Characteristics



MB34~MB320

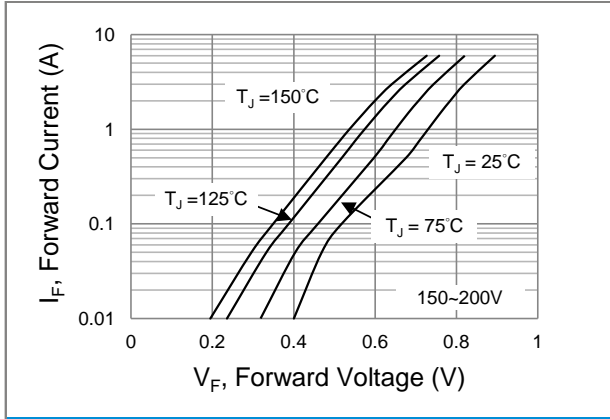


Fig.7 Typical Forward Characteristics

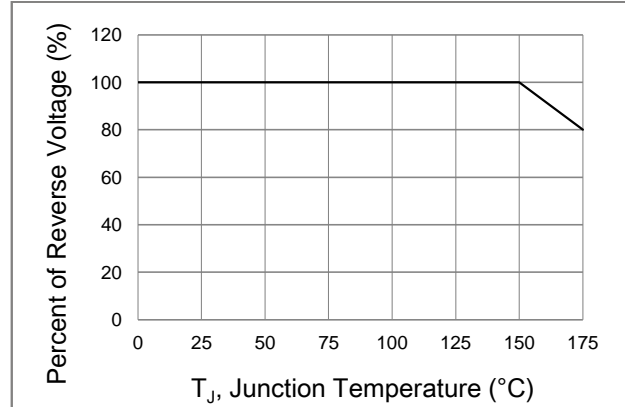


Fig.8 Operating Temperature Derating Curve

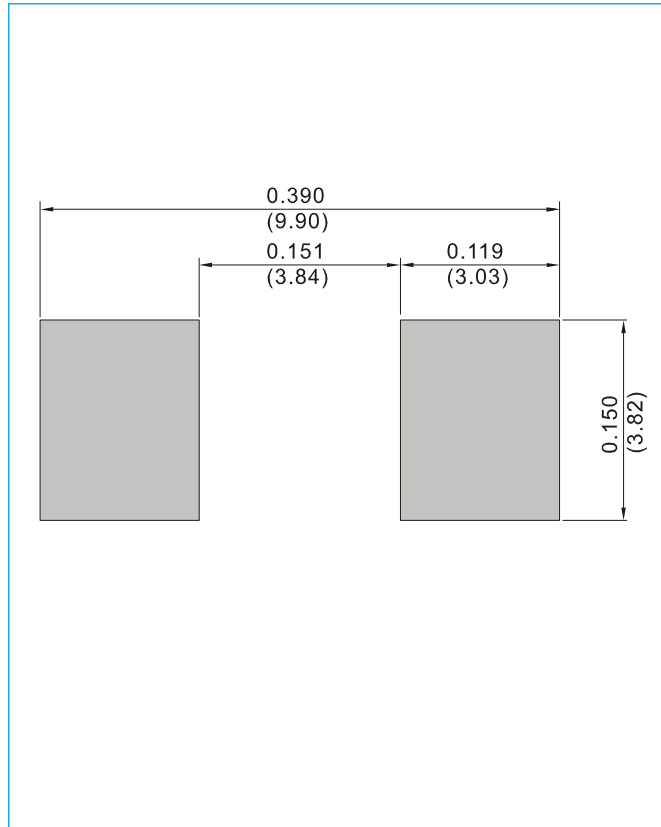


MB34~MB320

MOUNTING PAD LAYOUT

SMC / DO-214AB

Unit : inch(mm)



ORDER INFORMATION

- Packing information
 - T/R - 3K per 13" plastic Reel
 - T/R - 0.8K per 7" plastic Reel



MB34~MB320

Part No_packing code_Version

MB34_R1_00001

MB34_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			



MB34~MB320

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