VI. Bridge Rectifier

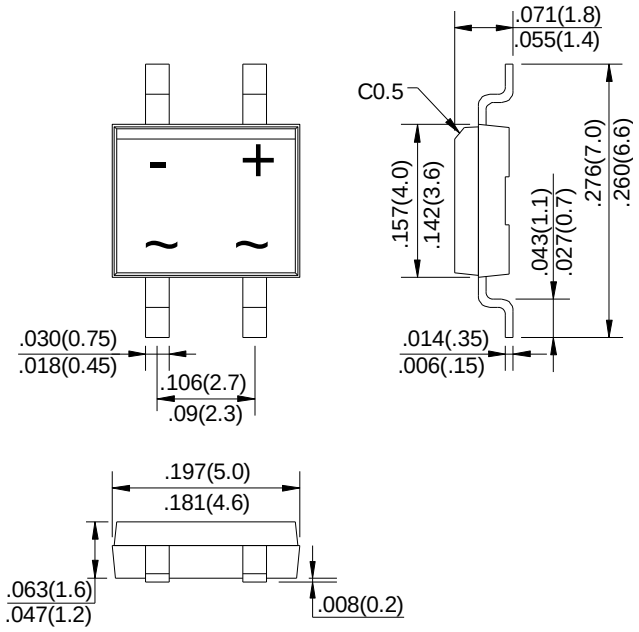
SMD Glass Passivated Bridge Rectifier (Fast Recovery, Low Profile Type)
RMD1S~RMD7S (Package: MTS)

FEATURES

- Fast recovery, low switching loss
- Reliable low cost construction utilizing molded plastic technique
- High surge current capability
- Small size, simple installation
- Plastic material has Underwriters Laboratory Flammability Classification 94V-0

MECHANICAL DATA

- Case : Molded plastic
- Terminals : Plated terminals, solderable per MIL-STD-202, Method 208
- Polarity : Polarity symbols marked on body
- Mounting position : Any
- Handling precaution : None



Case: MTS
Dimensions in inches and (millimeters)

Ratings & Electrical Characteristics

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase half-wave 60 Hz, resistive or inductive load, for capacitive load current derate by 20%.

Characteristics	Symbol	RMD 1S	RMD 2S	RMD 3S	RMD 4S	RMD 5S	RMD 6S	RMD 7S	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current on glass-epoxy P.C.B. (Note 2) on aluminum substrate (Note 3)	Io	0.5 0.8							Amps
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load, (JEDEC Method)	I_{FSM}	25							Amps
Maximum forward voltage at 0.4A DC and at 25℃	V_F	1.3							Volts
Maximum reverse current Ta=25℃ at rated DC blocking voltage Ta=125℃	I_R	5.0 500							μA
Typical junction capacitance (Note 1)	Cj	13							PF
Maximum reverse recovery time (Note 4)	T_{rr}	150				250	500		ns
Typical thermal resistance (Note 3)	Rth-JA	70							℃/ W
Typical thermal resistance (Note 2)	Rth-JL	20							℃/ W
Operating and storage temperature range	Tj, Tstg	-55 to +150							℃

Notes:
1. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts D.C.
2. On glass epoxy P.C.B. mounted on 0.05 x 0.05” (1.3 x 1.3mm) pads.
3. On aluminum substrate P.C.B. with an area of 0.8” x 0.8” (20 x 20mm) mounted on 0.05 x 0.05” (1.3 x 1.3mm) solder pad.
4. Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Ratings and Characteristic Curves of RMD1S~RMD7S

Fig. 1 – Maximum Forward Current Derating Curve

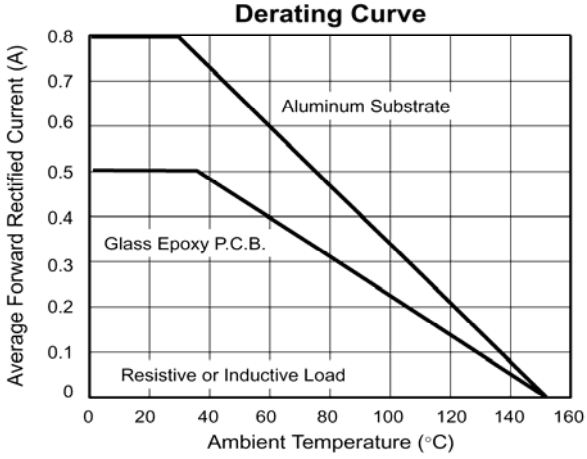


Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current

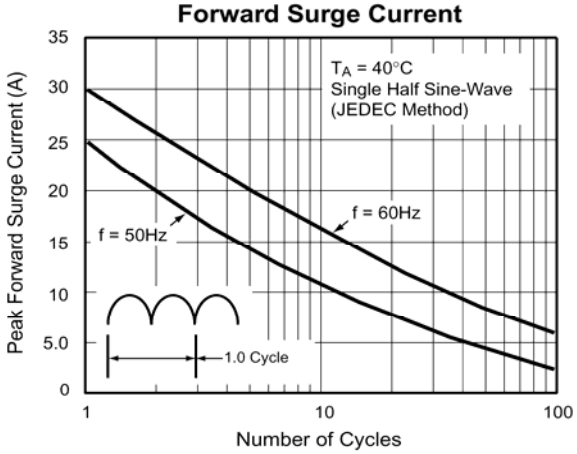


Fig. 3 – Typical Instantaneous Forward Characteristics

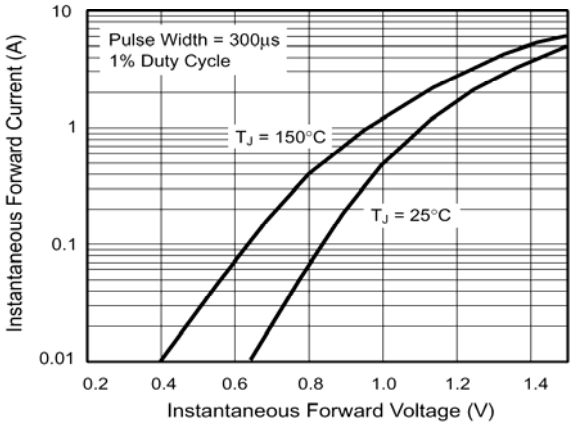


Fig. 4 - Typical Reverse Leakage Characteristics Per Leg

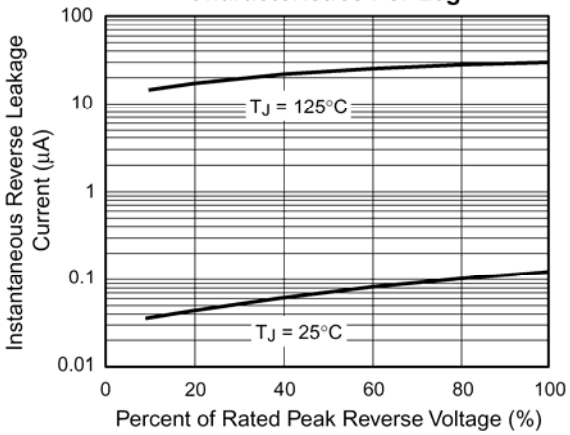


Fig. 5 - Typical Junction Capactitance Per Leg