

# ***RMDXS SERIES***

**MINIATURE SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER**

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# RMD1S THRU RMD7S

MINIATURE GLASS PASSIVATED FAST RECOVERY SINGLE-PHASE SURFACE MOUNT BRIDGE RECTIFIER



康比電子  
HORNBY ELECTRONIC

**REVERSE VOLTAGE:** 50 to 1000 VOLTS  
**FORWARD CURRENT:** 0.5 AMPERE

## FEATURES

- Glass passivated chip junction
- Fast recovery time, low switching loss
- High surge overload rating of 25 Amperes peak
- Ideal for printed circuit board
- High temperature soldering guaranteed:  
260°C for 10 seconds

## MECHANICAL DATA

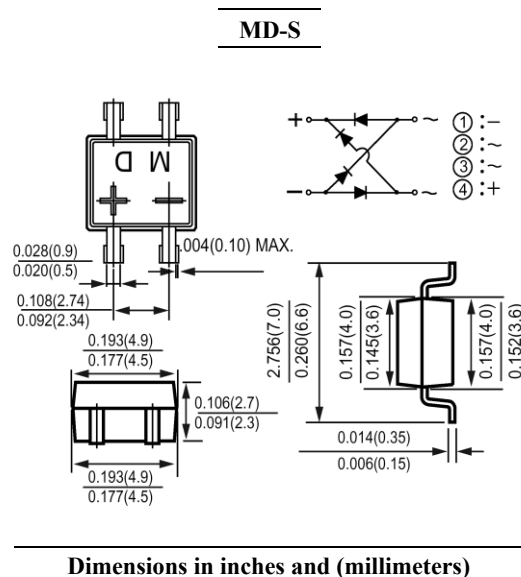
Case: Molded plastic, MD-S

Epoxy: UL 94V-O rate flame retardant

Terminals: Leads solderable per MIL-STD-202,  
method 208 guaranteed

Mounting position: Any

Weight: 0.008ounce, 0.22gram



## Maximum Ratings and Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%.

	Symbols	RMD1S	RMD2S	RMD3S	RMD4S	RMD5S	RMD6S	RMD7S	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 (see Fig. 1) on glass-epoxy P.C.B (Note 2) on aluminum substrate (Note 3)	$I_{(AV)}$	0.5 0.8							Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	25							Amp
Maximum Forward Voltage at 0.4A DC and 25 °C	$V_F$	1.25							Volts
Maximum Reverse Current at $T_A=25$ at Rated DC Blocking Voltage $T_A=125$	$I_R$	5.0 500							uAmp
Typical Junction Capacitance (Note 1)	$C_J$	13							pF
Maximum Reverse Recovery Time (Note 4)	$T_{RR}$	150			250		500		nS
Typical Thermal Resistance (Note 3)	$R_{\theta JA}$	70							/W
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	20							/W
Operating and Storage Temperature Range	$T_J, T_{stg}$	-55 to +150							

## NOTES:

1- Measured at 1 MHz and applied reverse voltage of 4.0 VDC.

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:  $I_F=0.5A$ ,  $I_R=1A$ ,  $I_{RR}=0.25A$ .

# RMD1S THRU RMD7S

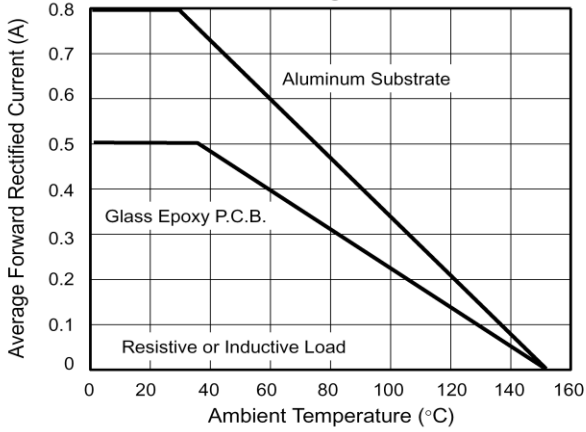
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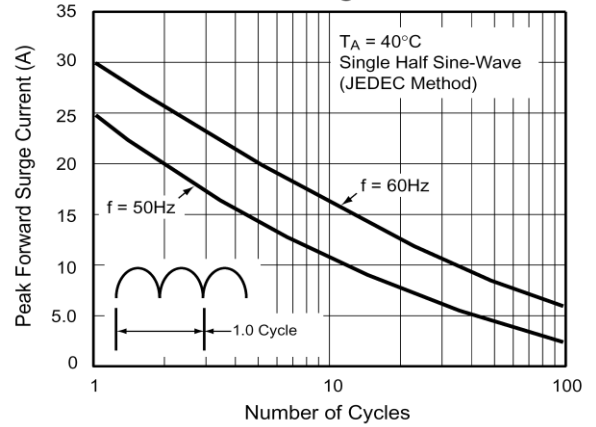
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## RATINGS AND CHARACTERISTIC CURVES

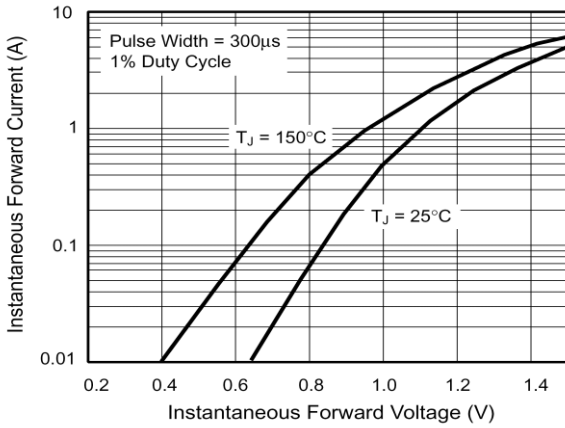
**Fig. 1 – Maximum Forward Current Derating Curve**



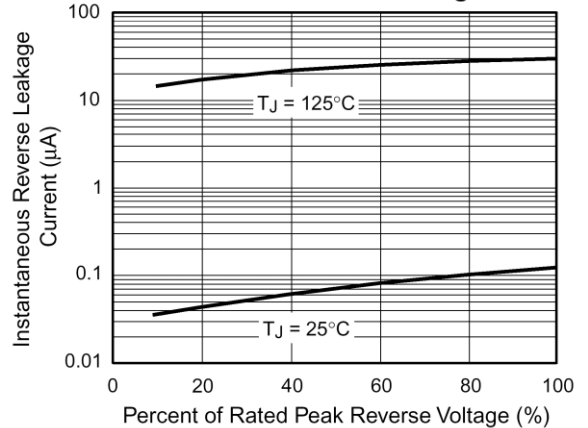
**Fig. 2 – Maximum Non-Repetitive Peak Forward Surge Current**



**Fig. 3 – Typical Instantaneous Forward Characteristics**



**Fig. 4 - Typical Reverse Leakage Characteristics Per Leg**



**Fig. 5 - Typical Junction Capacitance Per Leg**

