

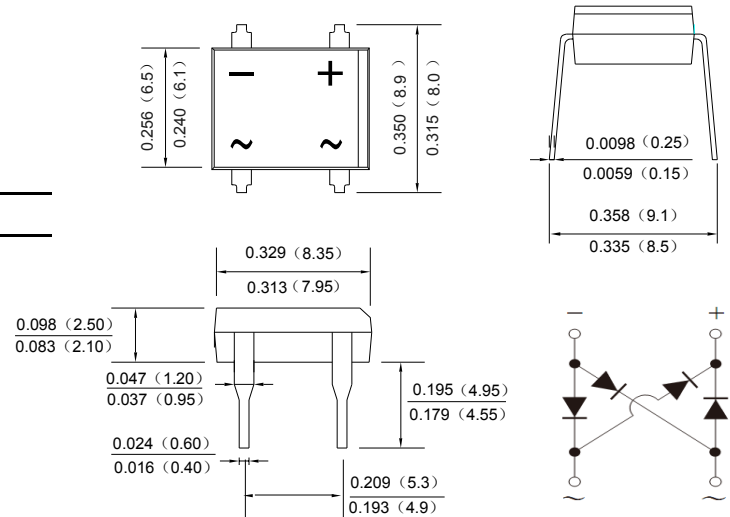
RDB301 THRU RDB307

SINGLE PHASE 3.0AMP SURFACE MOUNT GLASS PASSIVATED BRIDGE RECTIFIER

Features

- Glass passivated die construction
- Low forward voltage drop
- High current capability
- High surge current capability
- Designed for surface mount application
- Plastic material-UL flammability 94V-0

DB-M



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

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

For capacitive load, derate current by 20%.

TYPE NUMBER	SYMBOL	RDB301	RDB302	RDB303	RDB304	RDB305	RDB306	RDB307	UNITS
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage	V_{RRM}								
	V_{RWM}	50	100	200	400	600	800	1000	V
	V_{DC}								
RMS Reverse Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note 1)@ $T_C=100^\circ C$	IF(AV)	3.0							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	80							A
I^2t Rating for Fusing ($t < 8.3ms$)	I^2t	26.56							A ²
Forward Voltage per element @IF=3.0A	V_{FM}	1.3							V
Peak Reverse Current @ $T_A=25^\circ C$ At Rated DC Blocking Voltage @ $T_A=125^\circ C$	I_R	5.0 200							uA
Maximum reverse recovery time (Note 3)	T_{RR}	150				250	500		ns
Typical Junction Capacitance per leg (Note 2)	C_J	25							pF
Typical Thermal Resistance per leg	$R_{\theta JA}$	40							°C/W
	$R_{\theta JL}$	15							
Operating and Storage Temperature Range	T_J, T_{STG}	-55to+150							°C

Note:1. Mounted on glass epoxy PC board with 1.3mm² solder pad.

2.Measured at 1.0 MHz and applied reverse voltage of 4.0V D.C.

Fig. 1 Output Current Derating Curve

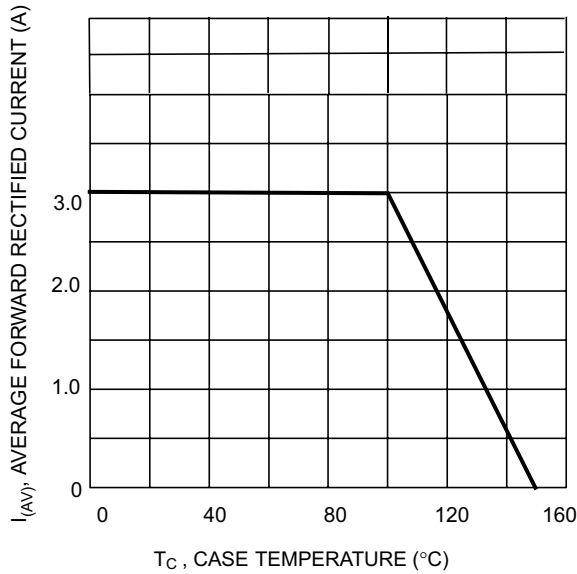


Fig. 2 Typical Forward Characteristics (per leg)

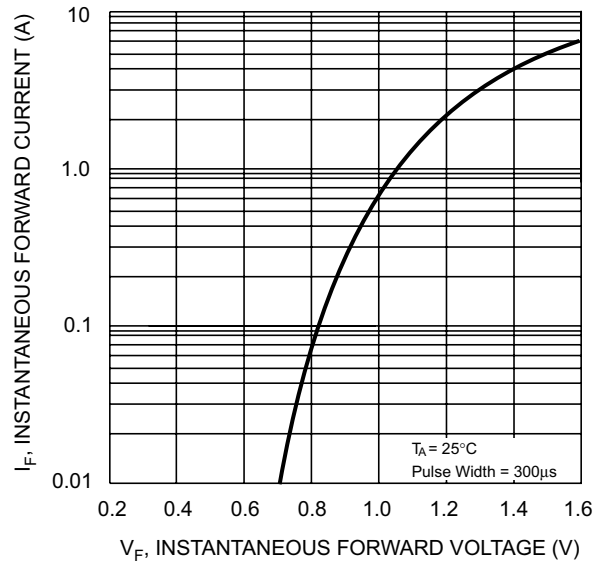


Fig. 3 Maximum Peak Forward Surge Current (per leg)

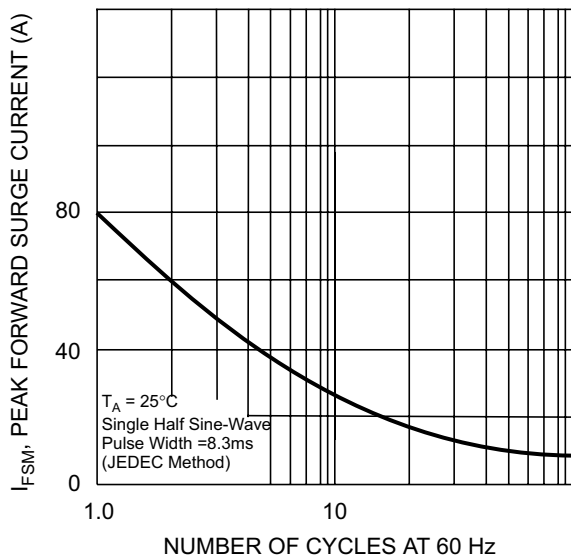
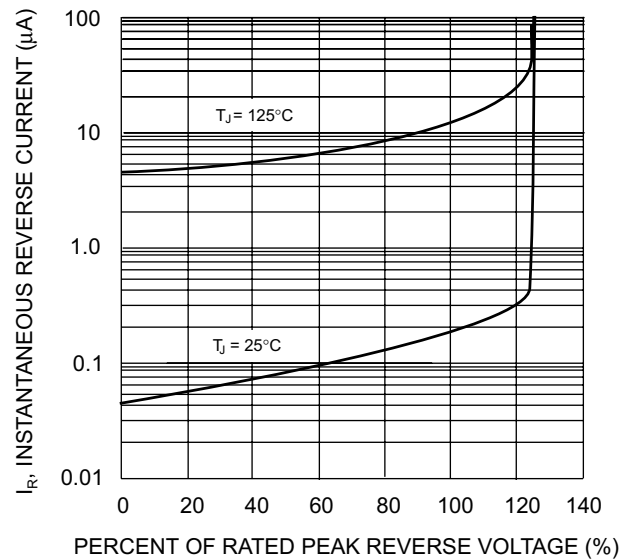


Fig. 4 Typical Reverse Characteristics (per element)



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