PECLERS ®

RDBF2005 THRU RDBF210

SINGLE-PHASE FAST GLASS PASSIVATED SILICON BRIDGE RECTIFIER

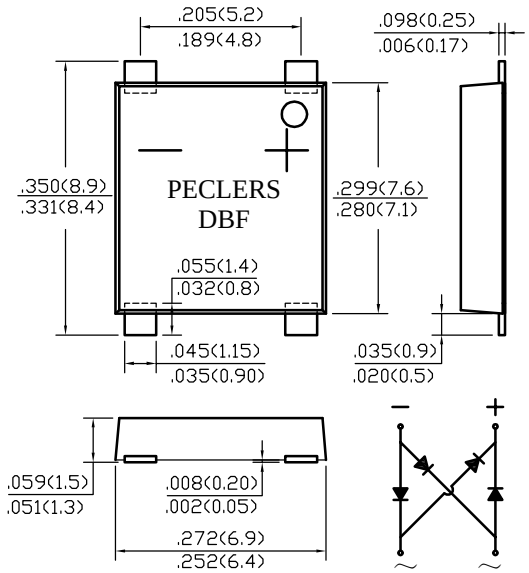
REVERSE VOLTAGE: **50 to 1000 VOLTS**
FORWARD CURRENT: **2.0 AMPERE**

FEATURE

. Glass passivated junction.
. Ideal for printed circuit board.
. Reliable low cost construction utilizing molded plastic technique.
. High surge current capability.
. High temperature soldering guaranteed: 260℃/10 seconds at terminals.

MECHANICAL DATA

. Case: Molded plastic, DBF
. Epoxy: UL 94V-O rate flame retardant
. Terminals: Leads solderable per MIL-STD-202, method 208 guaranteed
. Mounting position: Any
. Weight: 0.204g (approximately)



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Type Number	SYMBOL	RDBF 2005	RDBF 201	RDBF 202	RDBF 204	RDBF 206	RDBF 208	RDBF 210	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking Voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward rectified Current @ T_A=40℃	$I_{F(AV)}$	2.0							A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	60							A
Maximum Instantaneous Forward Voltage @I_F= 2.0A DC	V_F	1.3							V
Maximum DC Reverse Current @T_J =25°C at rated DC blocking voltage @T_J =125°C	I_R	5.0 500.0							μA
Maximum Reverse Recovery Time (Note 1)	trr	150				250	500		ns
Typical Thermal Resistance (Note2)	R_{JA}	40							°C /W
	R_{JC}	15							
Storage Temperature	T_{STG}	-55 to +150							°C
Operating Junction Temperature	T_J	-55 to +150							°C

Note:

1. Test Conditions: I_F = 0.5A, I_R = -1.0A, I_{RR} = -0.25A
2. Thermal resistance from Junction to case,lead and ambient in accordance with JESD-51.
   Unit mounted on 15mm*12mm*1.6mm AL pad attach 195mm*195mm*10mm steel plate

RATINGS AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

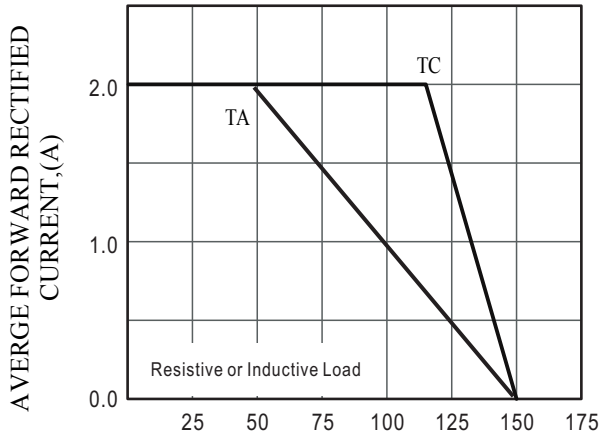


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

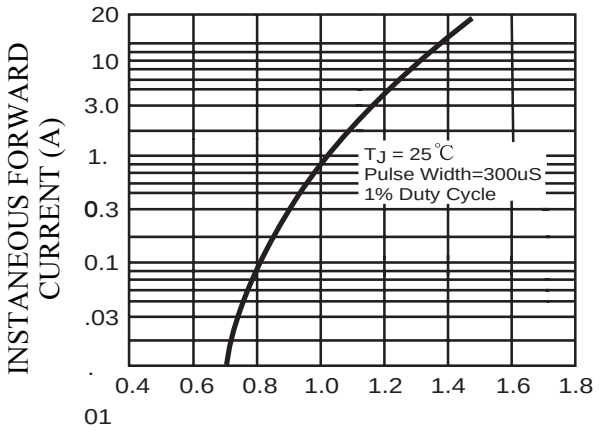


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

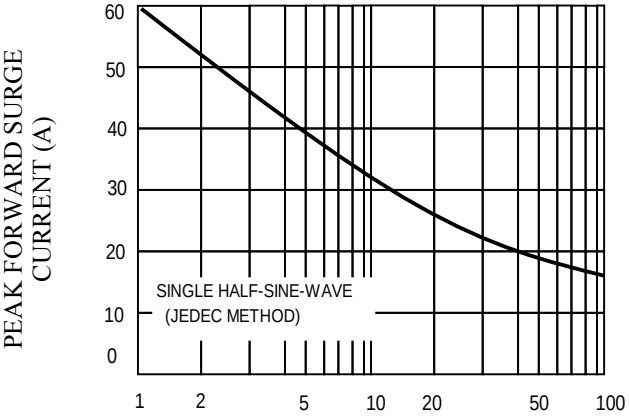


FIG.4-TYPICAL REVERSE CHARACTERISTICS

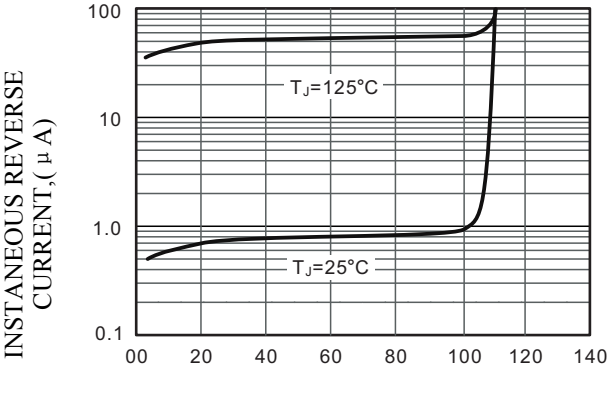
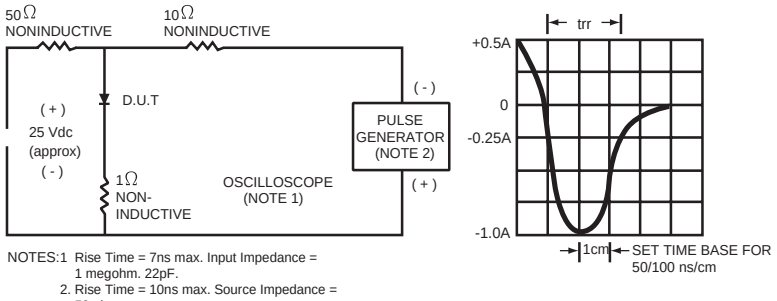


FIG. 5 - TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES:1 Rise Time = 7ns max. Input Impedance = 1 megohm. 22pF.
2. Rise Time = 10ns max. Source Impedance = 50 ohms.

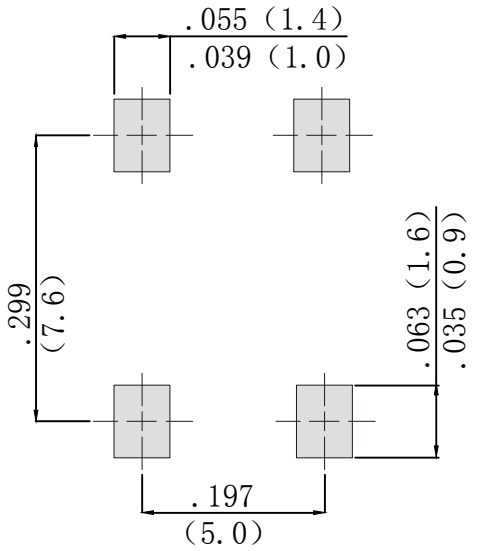



FIG.6 MOUNTING PAD LAYOUT