R1MF

1.0AMP. GLASS PASSIVATED FAST RECOVERY SURFACE MOUNT RECTIFIERS

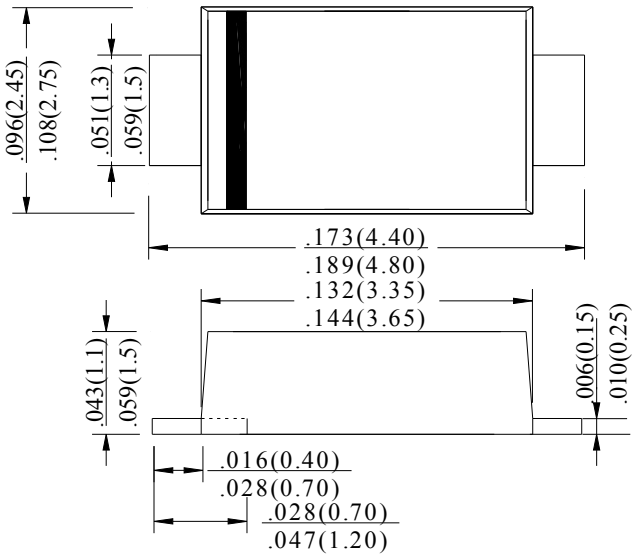
FEATURE

. Fast switching
. High current capability
. Low forward voltage drop
. Low power loss, high efficiency
. High temperature soldering guaranteed:
260℃/10 seconds at terminals.
. For surface mounted application
. Easy pick and place

MECHANICAL DATA

. Case: Molded plastic
. Epoxy: UL94V-0 rate flame retardant
. Lead: MIL-STD- 202E, Method 208 guaranteed
. Polarity:Color band denotes cathode end
. Packaging:12mm tape per EIA STD RS-481
. Mounting position: Any

SMF



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	R1MF	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS Voltage	V_{RMS}	700	V
Maximum DC blocking Voltage	V_{DC}	1000	V
Maximum Average Forward Rectified Current at T_C=90°C	$I_{F(AV)}$	1.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30.0	A
Maximum Forward Voltage at 1.0A DC	V_F	1.3	V
Maximum DC Reverse Current @T_A =25°C	I_R	5.0	μA
at rated DC blocking voltage @T_A =125°C		50.0	
Maximum Reverse Recovery Time (Note 1)	t_{rr}	500	nS
Typical Junction Capacitance (Note2)	C_j	12	pF
Typical Thermal Resistance (Note 3)	$R_{(JA)}$	80	°C /W
	$R_{(JC)}$	28	
Storage Temperature	T_{STG}	-55 to +150	°C
Operation 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. Measured at 1MHz and applied reverse voltage of 4.0 volts d.c.
3. TMeasured on P.C.Board with 0.6×0.6”(15.0×15.0cm)Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES (R1MF)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

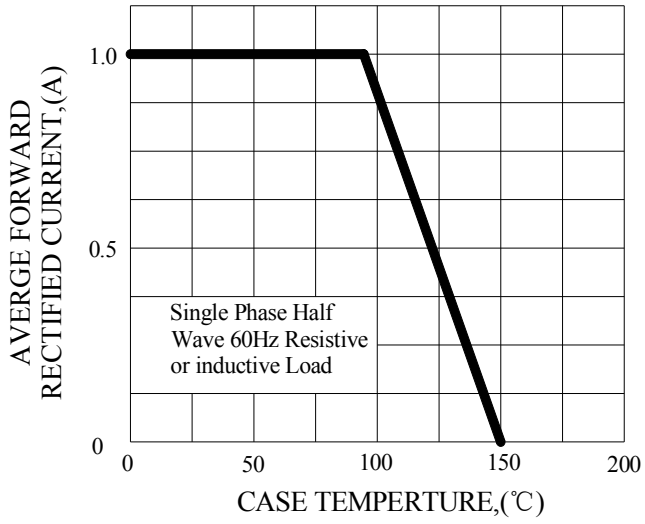


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

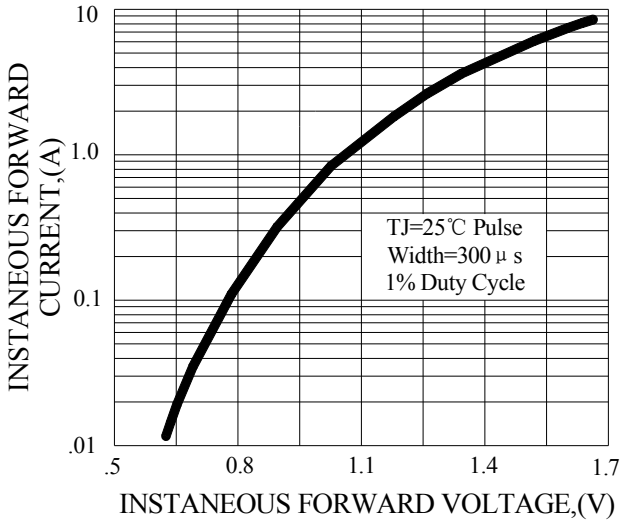


FIG.3-MAXIMUN NON-REPETITIVE FORWARD SURGE CURRENT

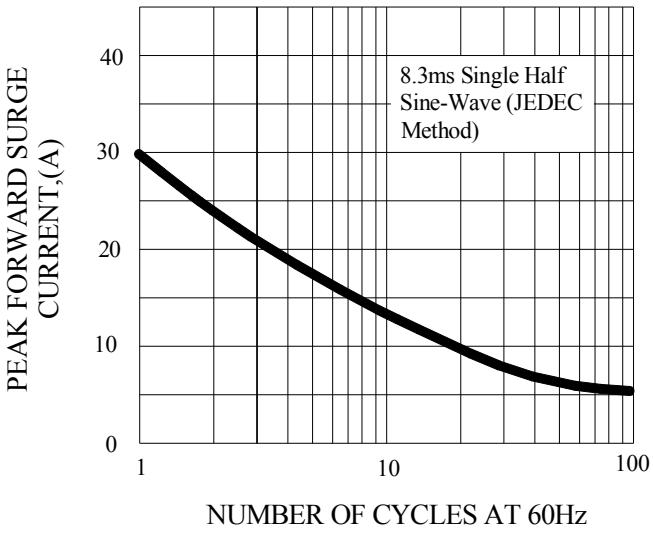


FIG.4-TYPICAL REVERSE CHARACTERISTICS

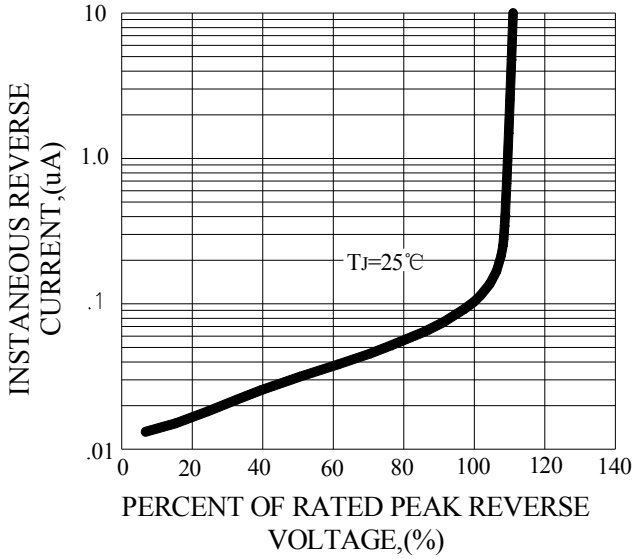
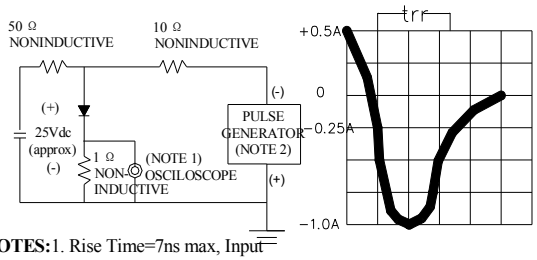


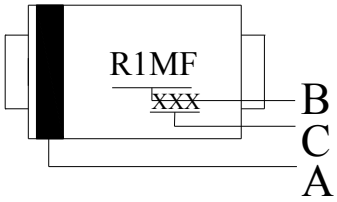
FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERSITIC



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

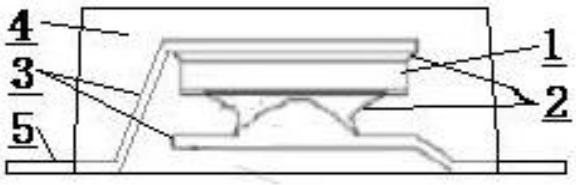
Marking 、Structure and packaging illustration

1、Marking



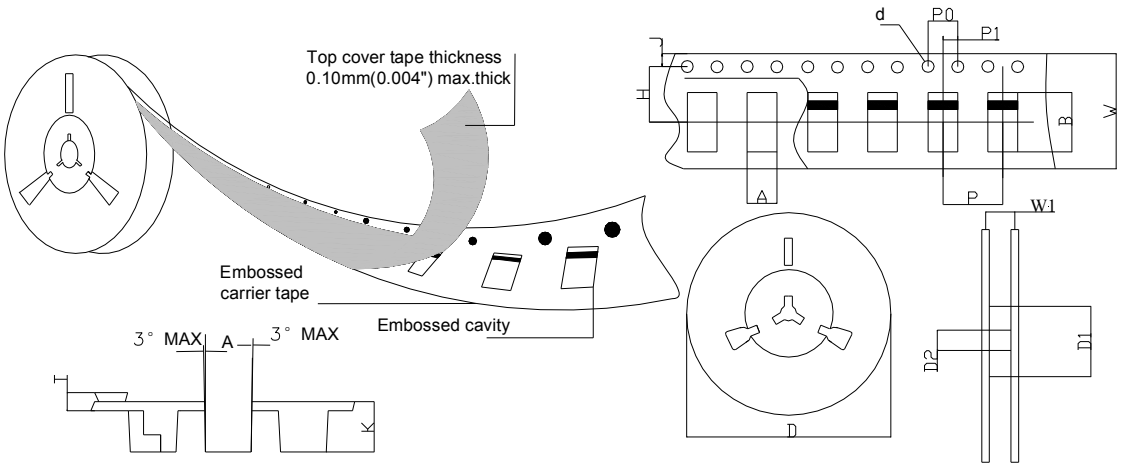
SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product Name
C	Date Code

2、Structure



SYMBOL	Explanation
1	Dice
2	Solder
3	Lead Wire
4	Epoxy Compound
5	Plating

3、Packaging



SPECIFICATIONS mm(inch)		PACKAGE			
SYMBOL / ITEM		SMF			
Carrier width	A	2.93(0.115)Max	Punch hole position	H	5.50(0.217)Typ
Carrier length	B	4.85(0.191)Max	Carrier depth	K	1.42(0.056)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Punch hole pitch	P	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel inner diameter	D1	50.0(1.969)Min	Embossment center	P1	2.00(0.079)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Overall tape thickness	T	0.25(0.010)Typ
Sprocket hole position	J	1.75(0.069)Typ	Tape width	W	12.0(0.472)Typ
			Reel width	W1	12.4(0.488)Min