

## GS1MR

### 1.0AMP. GLASS PASSIVATED SURFACE MOUNT RECTIFIERS

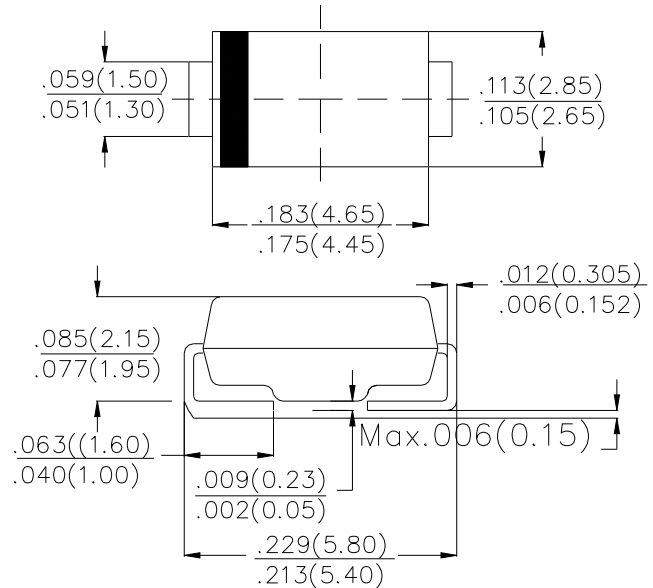
#### FEATURE

- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High temperature soldering guaranteed:  
260°C/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
- . Weight: 0.073 grams

#### SMA (DO-214AC)



Dimensions in inches and (millimeters)

### 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%

Type Number	SYMBOL	GS1MR	units
	<b>L</b>		
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 $T_C=100^\circ\text{C}$	$I_{F(AV)}$	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	$V_F$	1.1	V
Maximum DC Reverse Current @ $T_J=25^\circ\text{C}$ at rated DC blocking voltage @ $T_J=125^\circ\text{C}$	$I_R$	5.0 100.0	$\mu\text{A}$
Typical Junction Capacitance (Note1)	$C_j$	10	pF
Typical Thermal Resistance (Note 2)	$R_{(JC)}$	20	$^\circ\text{C}/\text{W}$
Storage Temperature	$T_{STG}$	-55 to +150	$^\circ\text{C}$
Operation Junction Temperature	$T_J$	-55 to +150	$^\circ\text{C}$

#### Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with 15.0×15.0×1.6mm Copper Pad Areas.

**RATING AND CHARACTERISTIC CURVES (GS1MR)**

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

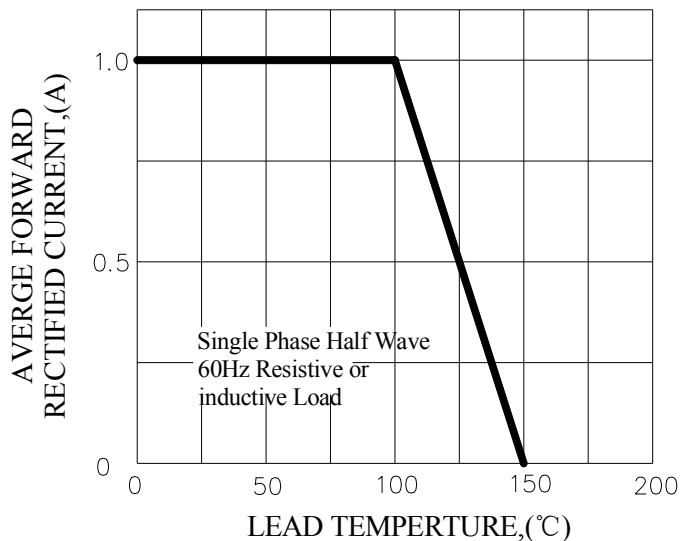


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

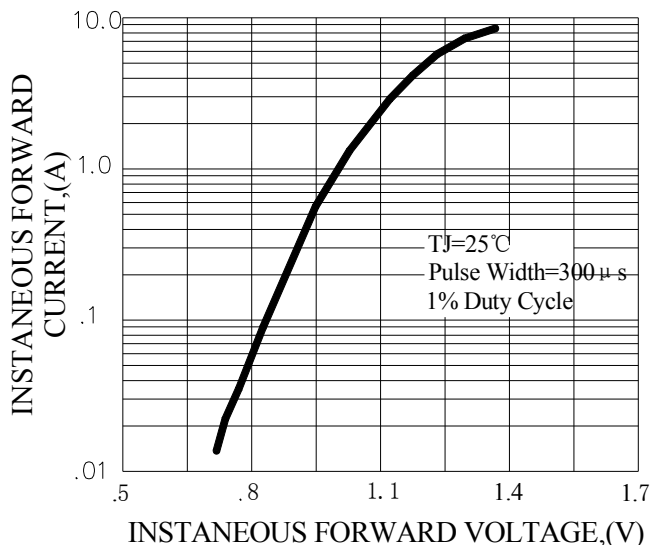


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

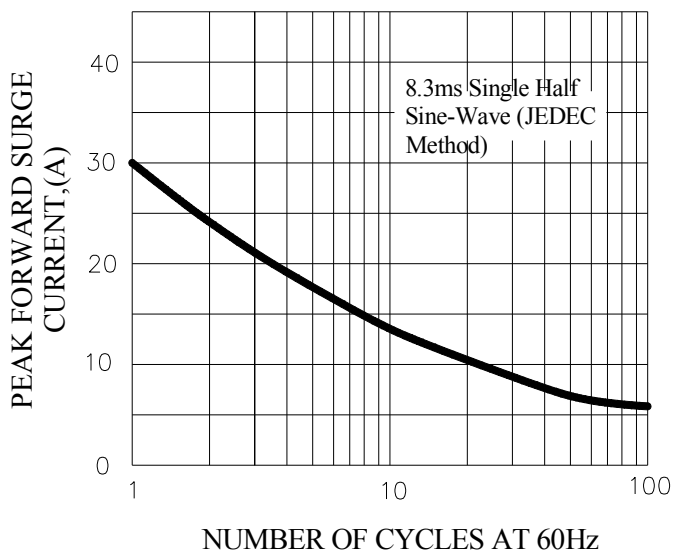
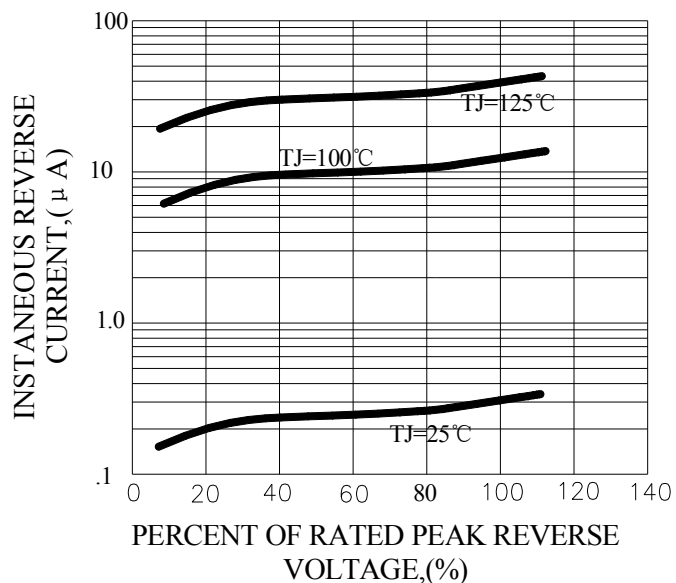
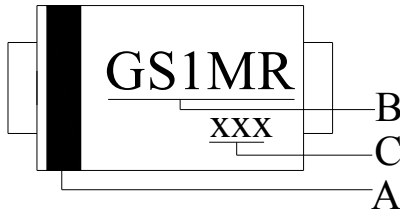


FIG.4-TYPICAL REVERSE CHARACTERISTICS



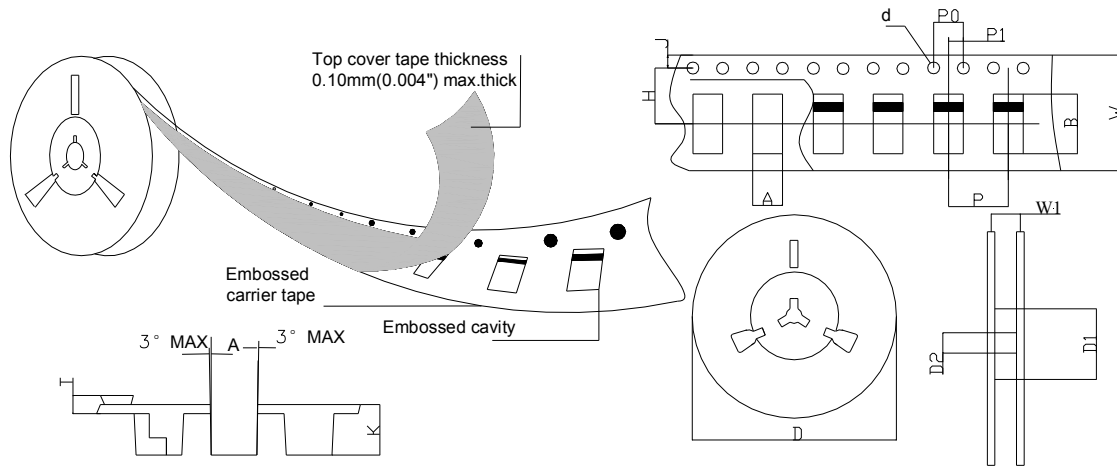
## Marking and packaging illustration

### 1、Marking



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

### 2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE
SYMBOL		SMA(DO-214AC)
ITEM		
Carrier width	A	3.17(0.125)Max
Carrier length	B	5.81(0.229)Max
Sprocket hole	d	ø1.55(0.061)Typ
Reel outer diameter	D	330.0(13)Typ
Reel inner diameter	D1	50.0(1.969)Min
Feed hole diameter	D2	13.0(0.512)Typ
Sprocket hole position	J	1.75(0.069)Typ
Punch hole position	H	5.55(0.219)Typ
Carrier depth	K	2.42(0.095)Typ
Punch hole pitch	P	4.00(0.157)Typ
Sprocket hole pitch	P0	4.00(0.157)Typ
Embossment center	P1	2.00(0.079)Typ
Overall tape thickness	T	0.30(0.012)Typ
Tape width	W	12.0(0.472)Typ
Reel width	W1	12.4(0.488)Min

## 零件耐溫说明

4、SMT制程的條件:所有SMD貼片元件及錫膏制程過迴焊爐插件(如排插)均符合:

1.1紅膠制程: $120^{\circ}\text{C} \cong T \cong 150^{\circ}\text{C}$  時間大於120sec

1.2錫膏制程:  $245^{\circ}\text{C}/60\text{sec}$   $180^{\circ}\text{C}/120\text{sec}$  ;MAX  $245^{\circ}\text{C}$

1.3AI/RI插件符合: 紅膠制程: $120^{\circ}\text{C} \cong T \cong 150^{\circ}\text{C}$  時間大於120sec

5、Wave Soldering制程條件:

2.1最高溫度:  $260+0/-5^{\circ}\text{C}$  5sec

2.2零件溫升 $\Delta T < 145^{\circ}\text{C}$ (即:零件承受的瞬間溫差須小於 $145^{\circ}\text{C}$ )

3、Soldering Iron制程條件:

3.1SMD貼片元件溫度:  $260^{\circ}\text{C} \cong T \cong 320^{\circ}\text{C}$  時間 5sec

3.2手插元件溫度:  $350^{\circ}\text{C} \cong T \cong 420^{\circ}\text{C}$  時間 5sec