

GS8M

8.0AMPS. GLASS PASSIVATED SURFACE MOUNT RECTIFIERS

<p>FEATURE</p> <ul style="list-style-type: none"> . High current capability . Low forward voltage drop . Low power loss, high efficiency . High surge capability . High temperature soldering guaranteed: 260°C/10 seconds at terminals. . For surface mounted application. . Easy pick and place. <p>MECHANICAL DATA</p> <ul style="list-style-type: none"> . Case: Molded plastic . Epoxy: UL94V-0 rate flame retardant . Lead: MIL-STD- 202E, Method 208 guaranteed . Polarity:Color band denotes cathode end . Weight: 0.230 grams 	<p>SMC (DO-214AB)</p> <p>Dimensions in inches and (millimeters)</p>
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Single phase, half wave, 60Hz,resistive or inductive load. For capacitive load, derate current by 20%

MAXIMUM RATINGS (T_C=25°C unless otherwise noted)

Parameter	Symbol	GS8M	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
Average Forward Rectified Current at T _C ≤90°C	I _{F(AV)}	8.0	A
Non-repetitive forward surge current,8.3mS half sine-wave	I _{FSM}	200	A
Typical Junction Capacitance (Note1)	C _J	40	pF
Minimum Reverse Recovery Time (Note 2)	t _{rr}	800	nS
Operation Junction Temperature and Storage Temperature	T _J , T _{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise noted)

Parameter	Symbol	Min	Typ	Max	Units
Instantaneous Forward voltage at 8A	V _F	----	0.95 0.86	1.1 ----	V
reverse current at rated DC blocking voltage	I _R	----- -----	----- -----	10.0 100.0	uA

THERMAL CHARACTERISTICS(T_C=25°C unless otherwise noted)

Parameter	Symbol	GS8M	Units
Typical Thermal Resistance (Note3)	R _(JA)	50	°C/W
	R _(JC)	19	

Note:

1. T_J=25°C, V_R = 4V_{DC}@1Mhz
2. Conditions:I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
3. Measured on P.C.Board with15.0mm*15.0mm*1.6mm Copper Pad Areas

RATING AND CHARACTERISTIC CURVES (GS8M)

FIG.1-TYPICAL FORWARD CURRENT BERATING CURVE

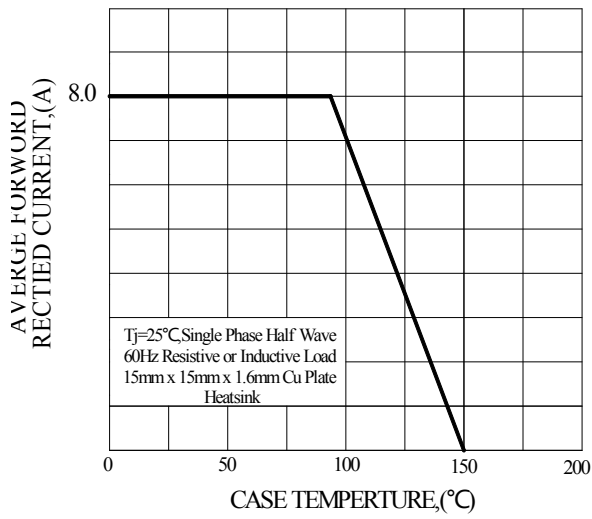


FIG.2-TYPICAL INSTANTENOUS FORWARD CHATACTERISTICS

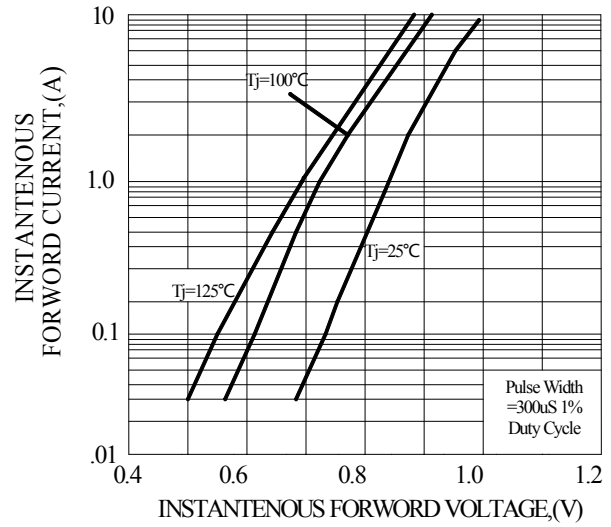


FIG.3-MAXIMUN NON-REPEITIVE FORWARD SURGE CURRENT

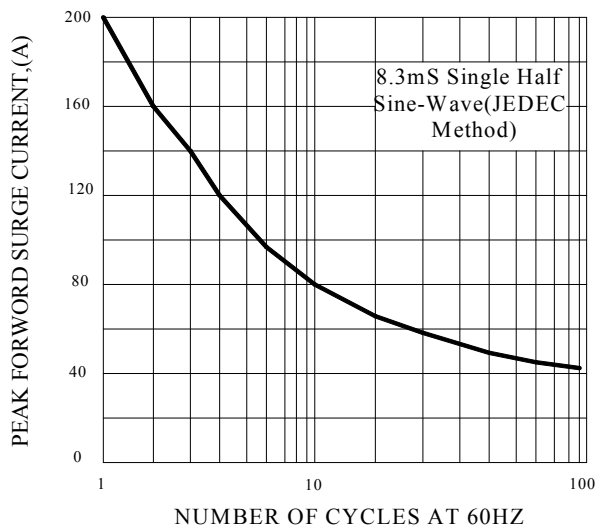


FIG.4-TYPICAL REVERSE CHATACTERISTICS

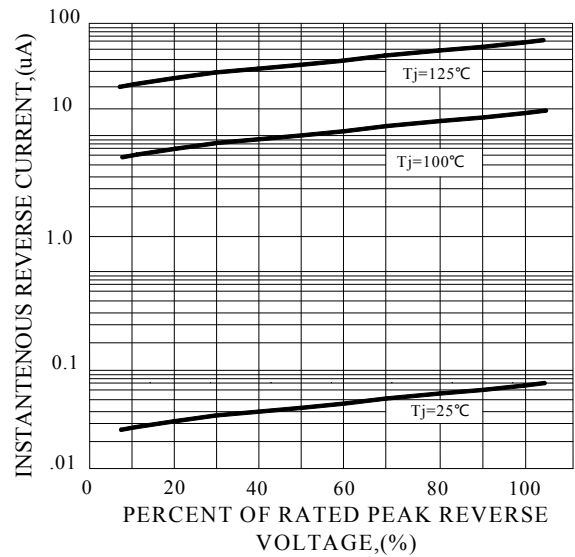
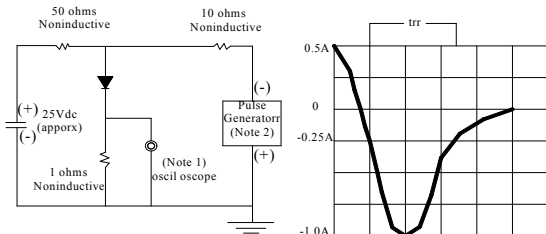
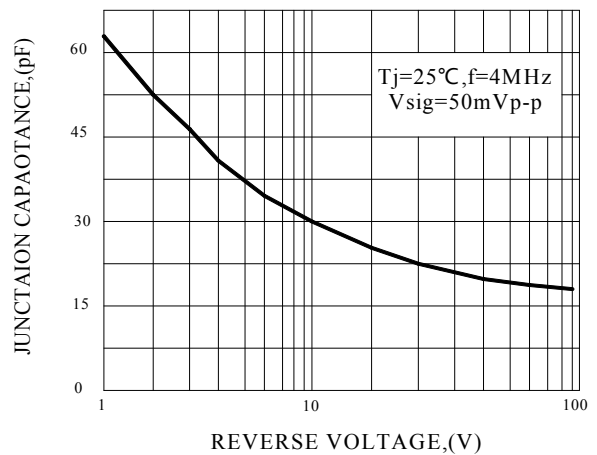


FIG.5-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



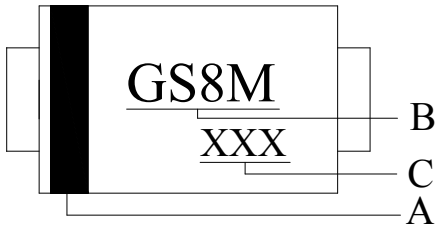
Notes: 1 Rise Time=7nS max,
 Input Impedance=1mogohm,22pF
 2 Rise Time=10nS max,
 Soule Impedance= 50ohms

FIG.6-TYPIAL JUNCTION CAPACITANCE



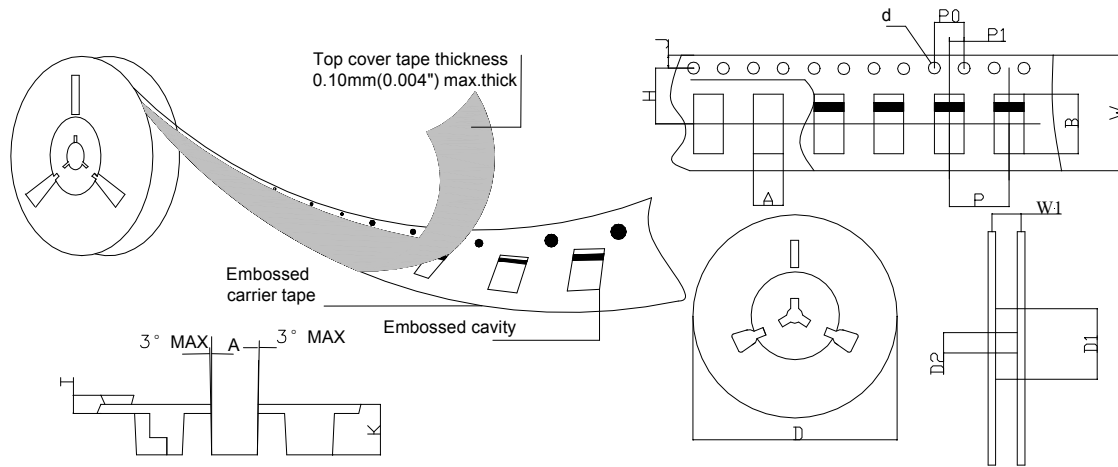
Marking and packaging illustration

1、Marking



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

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE	SPECIFICATIONS mm(inch)		PACKAGE
ITEM	SYM BOL	SMC (DO-214AB)	ITEM	SYM BOL	SMC (DO-214AB)
Carrier width	A	6.15(0.242)Max	Carrier depth	K	2.54(0.100)Typ
Carrier length	B	8.41(0.331)Max	Punch hole pitch	P	8.00(0.315)Typ
Sprocket hole	d	ø1.55(0.061)Typ	Sprocket hole pitch	P0	4.00(0.157)Typ
Reel outer diameter	D	330.0(13.0)Typ	Embossment center	P1	2.00(0.079)Typ
Reel inner diameter	D1	74.0(2.913)Min	Overall tape thickness	T	0.25(0.010)Typ
Feed hole diameter	D2	13.0(0.512)Typ	Tape width	W	16.0(0.430)Typ
Sprocket hole position	J	1.75(0.069)Typ	Reel width	W1	16.5(0.650)Min
Punch hole position	H	7.50(0.295)Typ			

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