JGD

GS1A THRU GS1M

1.0 AMP. SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.0 Ampere

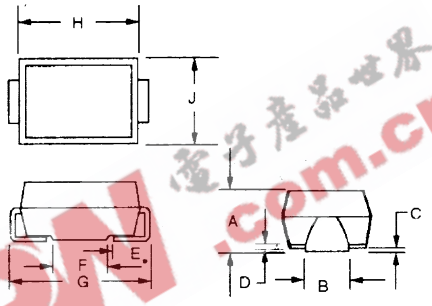
FEATURES

* For surface mounted application
* Low forward voltage drop
* High current capability
* Easy pick and place
* High surge current capability
* Plastic material used carries Underwriters Laboratory classification 94V-O

MECHANICAL DATA

* Case: Molded plastic
* Terminals: Solder plated
* Polarity: Indicated by cathode band
* Packaging: 12mm tape per EIA STD RS-481
* Weight: 0.091 gram

SMA/DO-214AC*



DIMENSIONS	inches		mm	
	Min	Max	Min	Max
A	0.078(L)	0.116(L)	1.98(L)	2.95(L)
A	0.110(H)	0.117(H)	2.80(H)	2.98(H)
B	0.067	0.088	1.7	2.24
C		0.008		0.20
D		0.02		0.51
E	0.030	0.060	0.76	1.52
F	0.065	0.094	1.65	2.39
G	0.204	0.220	5.21	5.59
H	0.160	0.180	4.06	4.57
I	0.101	0.112	2.56	2.85

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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	SYMBOLS	GS1A	GS1B	GS1D	GS1G	GS1J	GS1K	GS1M	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_L = 75℃	$I_{F(AV)}$	1.0							A
Peak Forward Surge Current, 8.3 ms half sine	I_{FSM}	30							A
Maximum Instantaneous Forward Voltage @ 1.0A	V_F	1.1							V
Maximum D.C Reverse Current @ T_A = 25℃ at Rated D.C. Blocking Voltage @ T_A = 100℃	I_R	5.0 50							μA μA
Maximum Reverse Recovery Time(Note 1)	T_{rr}	1.8							μS
Typical Junction Capacitance (Note 2)	C_J	8							pF
Operating Temperature Range	T_J	− 55 to + 150							℃
Storage Temperature Range	T_{STG}	− 55 to + 150							℃

NOTES: 1. Reverse Recovery Test Conditions: I_F = 0.5A. I_R = 1.0A, I_{RR} = 0.25A
2. Measured at 1 MHz and applied V_R = 4.0 volts D.C.

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RATINGS AND CHARACTERISTIC CURVES (GS1A THRU GS1M)

FIG.1 – FORWARD CURRENT DERATING CURVE

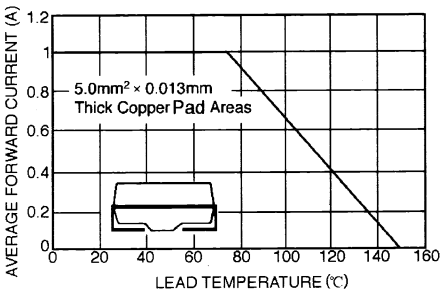

FIG.2 – MAXIMUM NON – REPETITIVE PEAK FORWARD SURGE CURRENT

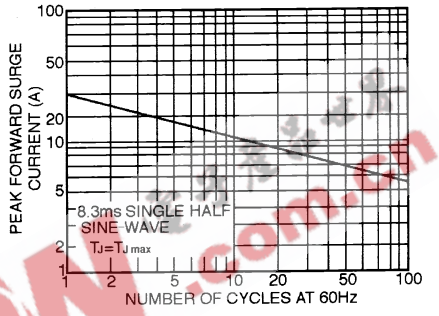

FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

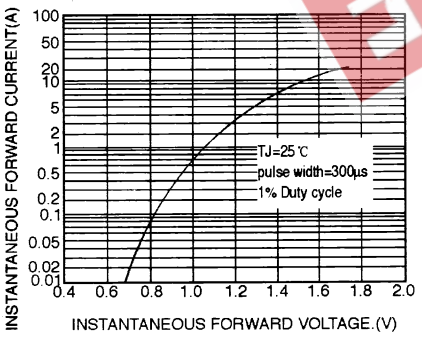

FIG.4 – TYPICAL JUNCTION CAPACITANCE

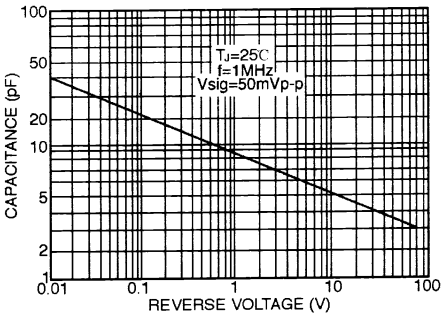

FIG.5 – TYPICAL REVERSE CHARACTERISTICS