Micro Commercial Components

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GS1AE-TPS05 THRU GS1ME-TPS05

1.0 Amp Silicon Rectifier 50 to 1000 Volts

Features

- Lead Free Finish/RoHS Compliant(Note 1) ("P" Suffix designates RoHS Compliant. See ordering information)
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- For Surface Mount Applications
- Extremely Low Thermal Resistance
- High Temp Soldering:260°C for 10 Seconds At Terminals
- Vacuum Soldering Process Provides Better Surge Capability
- Halogen free available upon request by adding suffix "-HF"

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 15°C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Reccurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GS1AE-TPS05	GS1A	50V	35V	50V
GS1BE-TPS05	GS1B	100V	70V	100V
GS1DE-TPS05	GS1D	200V	140V	200V
GS1GE-TPS05	GS1G	400V	280V	400V
GS1JE-TPS05	GS1J	600V	420V	600V
GS1KE-TPS05	GS1K	800V	560V	800V
GS1ME-TPS05	GS1M	1000V	700V	1000V

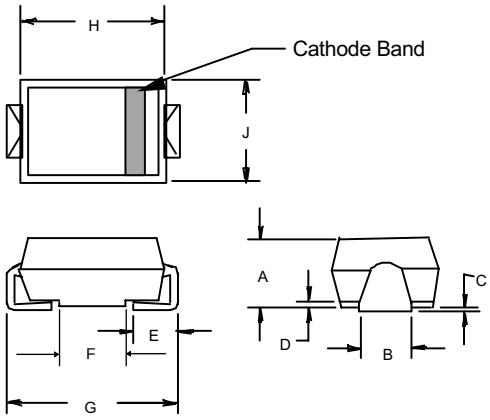
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward current	$I_{F(AV)}$	1.0A	T_L = 110°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine,
Maximum Instantaneous Forward Voltage	V_F	1.1V	I_{FM} = 1.0A; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	10μA 50μA	T_J = 25°C T_J = 125°C
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, V_R=4.0V

Notes: 1. High Temperature Solder Exemption Applied, see EU Directive Annex Notes 7.

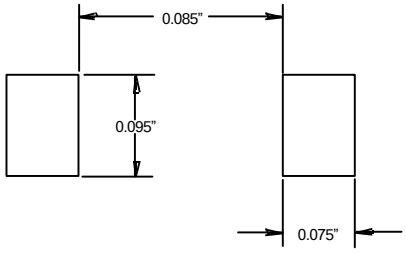
*Pulse test: Pulse width 300 μsec, Duty cycle 2%

DO-214AC
(SMAE)



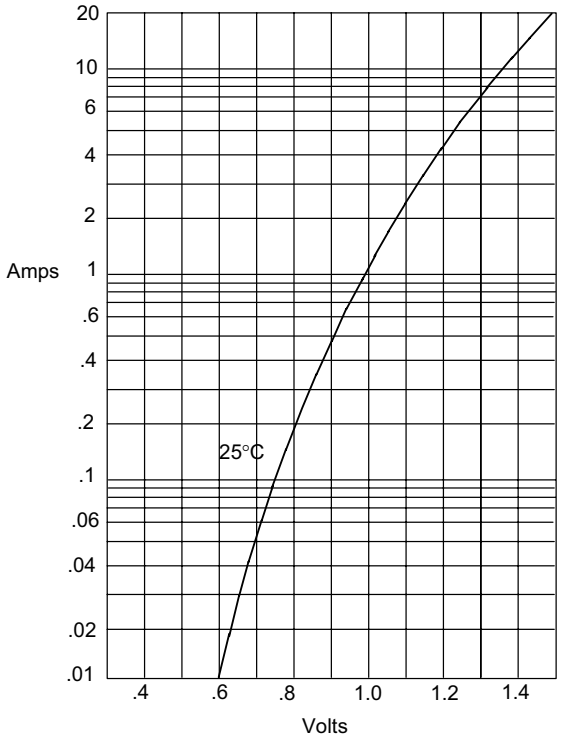
DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.01	2.44	
B	.045	.071	1.15	1.80	
C	.002	.008	.05	.20	
D	---	.02	---	.51	
E	.030	.060	.76	1.52	
F	.065	.084	1.65	2.13	
G	.189	.208	4.80	5.30	
H	.157	.180	4.00	4.57	
J	.090	.115	2.29	2.92	

SUGGESTED SOLDER PAD LAYOUT



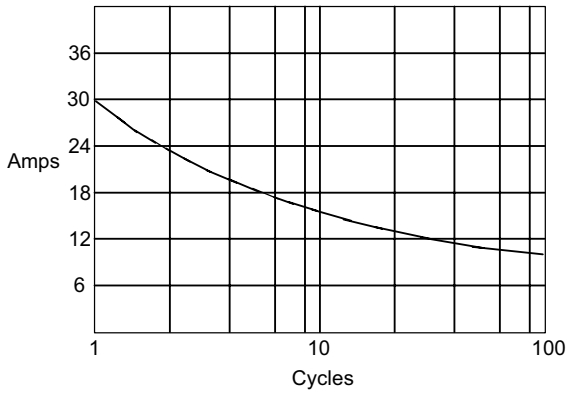
GS1AE-TPS05 thru GS1ME-TPS05

Figure 1
Typical Forward Characteristics



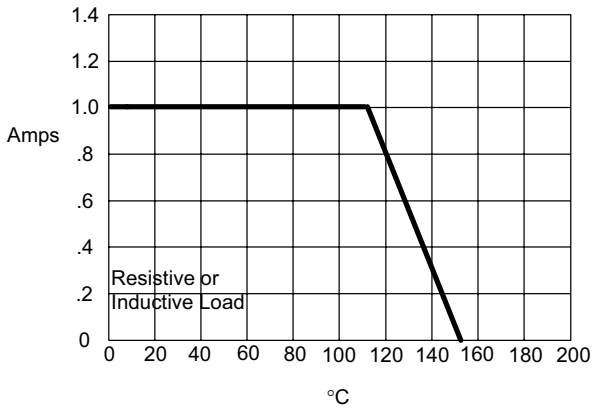
Instantaneous Forward Current - Amperes*versus*
Instantaneous Forward Voltage - Volts

Figure 3
Maximum Overload Surge Current



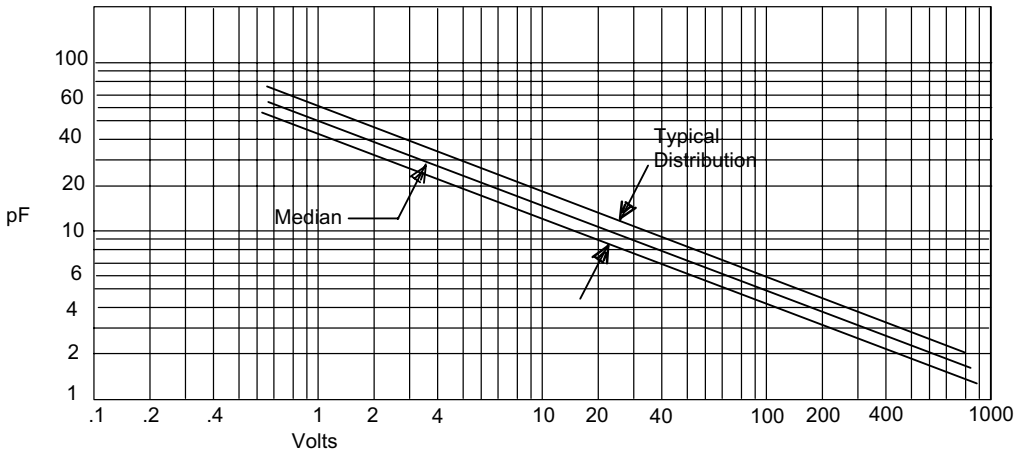
Peak Forward Current - Amperes*versus*
Number of Cycles at 60Hz

Figure 4
Forward Derating Curve



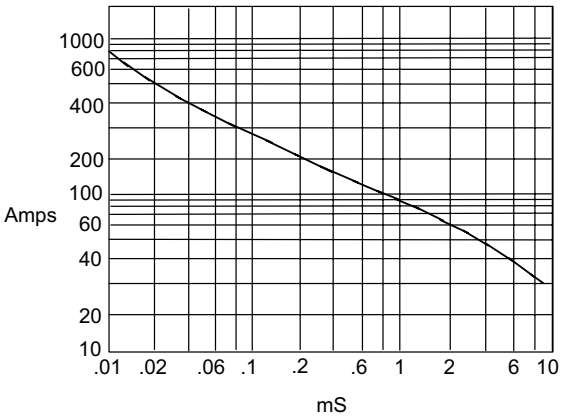
Average Forward Rectified Current - Amperes*versus*
Lead Temperature -°C

Figure 2
Junction Capacitance



Junction Capacitance - pF*versus*
Reverse Junction Potential (Applied V + 0.7 Volts) - Volts

Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes*versus*
Pulse Duration - Milliseconds (mS)

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Ordering Information :

Device	Packing
GS1AE-TPS05~GS1ME-TPS05	Tape&Reel: 6Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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