SUGC10AH THRU SUGC10JH

1 Amp Super Fast Recovery

Features

- For Surface Mount Applications
- Low Power Loss, High Efficiency
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant (Note1)("P"Suffix designates Compliant. See ordering information)
- Welding Iron Temp:350°C for 3s max.
- Storage Condition: Less than 30°C,RH<70%

1 Amp Super Fast Recovery Silicon Rectifier 50 to 600 Volts

Maximum Ratings

- Operating Temperature: -50°C to +150°C
- Storage Temperature: -50°C to +150°C
- Maximum Thermal Resistance; 75°C/W Junction To Ambient.

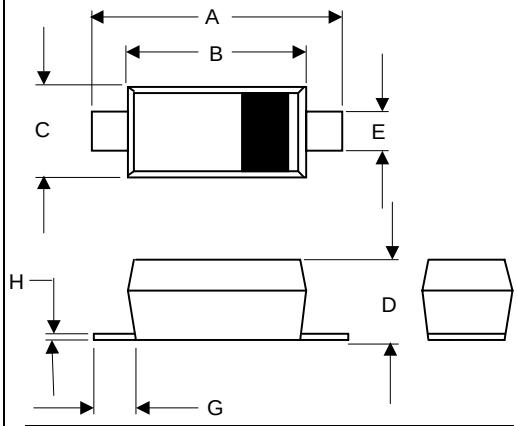
MCC Part Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SUGC10AH	E1A	50V	35V	50V
SUGC10BH	E1B	100V	70V	100V
SUGC10CH	E1C	150V	105V	150V
SUGC10DH	E1D	200V	140V	200V
SUGC10EH	E1E	300V	210V	300V
SUGC10GH	E1G	400V	280V	400V
SUGC10HH	E1H	500V	350V	500V
SUGC10JH	E1J	600V	420V	600V

Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_a = 50°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage SUGC10AH-10DH SUGC10EH-10GH SUGC10HH-10JH	V_F	.95V 1.25V 1.70V	I_{FM} = 1.0A; T_a = 25°C
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5μA 100μA	Ta = 25°C Ta = 100°C
Maximum Reverse Recovery Time	T_{rr}	35ns	I_F=0.5A, I_R=1.0A, I_{rr}=0.25A
Typical Junction Capacitance	C_J	10pF	Measured at 1.0MHz, V_R=4.0V

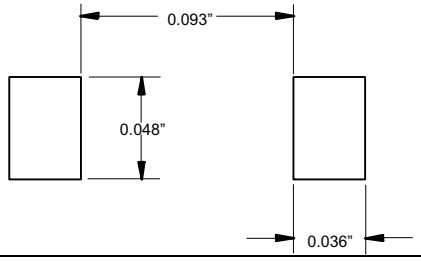
Note: 1. High Temperature Solder Exemption Applied, see EU Directive Annex 7.

SOD-123FL



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.140	.152	3.55	3.85	
B	.100	.112	2.55	2.85	
C	.055	.071	1.40	1.80	
D	.037	.053	0.95	1.35	
E	.020	.039	0.50	1.00	
G	.010	-----	0.25	-----	
H	-----	.008	----	.20	

SUGGESTED SOLDER PAD LAYOUT



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RATING AND CHARACTERISTIC CURVES

FIG.1-TYPICAL FORWARD CHARACTERISTICS

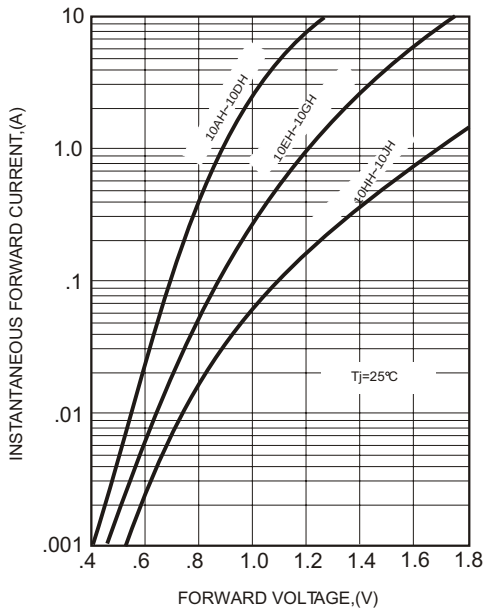


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

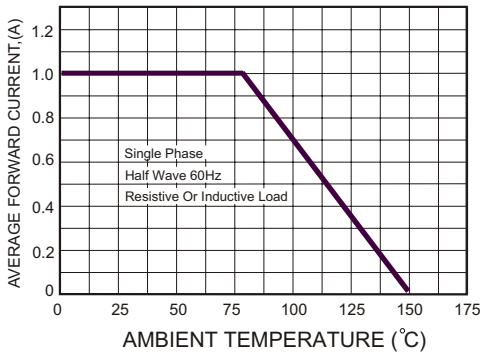
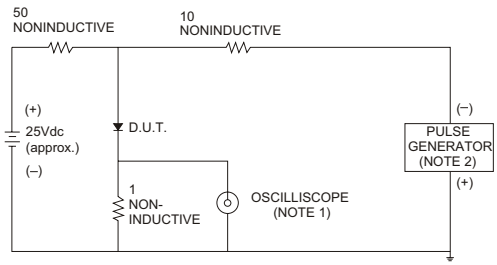
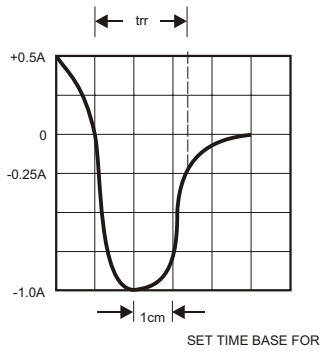


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.



SET TIME BASE FOR
50 / 10ns / cm

FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

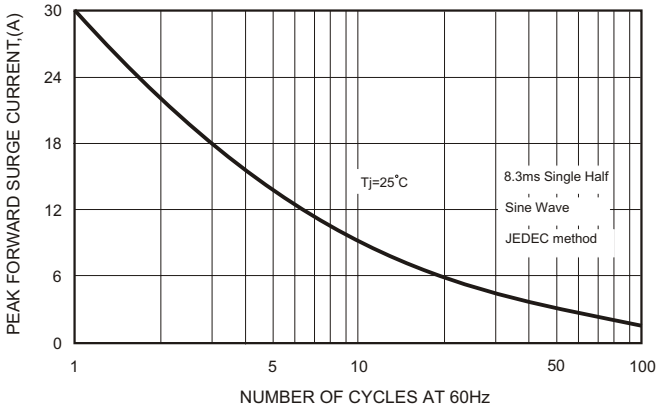


FIG.5-TYPICAL JUNCTION CAPACITANCE

