Micro Commercial Components

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SM4933A THRU SM4937A

1 Amp Fast Recovery Rectifier 50 - 600 Volts

Features

- Halogen free available upon request by adding suffix "-HF"
- 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
- Metalurgically Bonded Construction
- Low Cost and Low Leakage Current
- Fast Switching

Maximum Ratings

- Operating Temperature: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Maximum Thermal Resistance; 30°C/W Junction To Lead

MCC Catalog Number	Device Marking	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
SM4933A	4933	50V	35V	50V
SM4934A	4934	100V	70V	100V
SM4935A	4935	200V	140V	200V
SM4936A	4936	400V	280V	400V
SM4937A	4937	600V	420V	600V

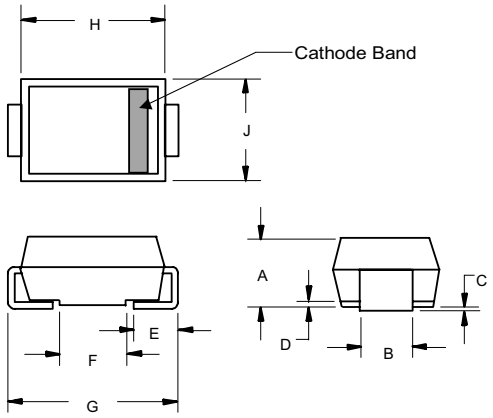
Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	1.0A	T_A =55°C
Peak Forward Surge Current	I_{FSM}	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage	V_F	1.3V	I_{FM} = 1.0A; T_J = 25°C*
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	5.0µA 100µA	T_J = 25°C T_J = 125°C
Maximum Reverse Recovery Time	T_{rr}	200ns	I_F=0.5A, I_R=1.0A Irr=0.25A
Typical Junction Capacitance	C_J	15pF	Measured at 1.0MHz, V_R=4.0V

*Pulse test: Pulse width 300 µsec, Duty cycle 1%

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

DO-214AC
(SMA) (LEAD FRAME)



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
A	.079	.096	2.00	2.44	
B	.050	.064	1.27	1.63	
C	.002	.006	.05	.20	
D	- - -	.02	- - -	.51	
E	.030	.060	.76	1.52	
F	.065	.091	1.65	2.32	
G	.189	.220	4.80	5.59	
H	.157	.181	4.00	4.60	
J	.090	.115	2.25	2.92	

SUGGESTED SOLDER PAD LAYOUT

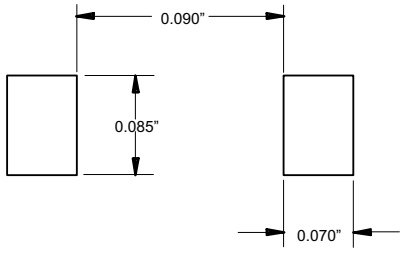
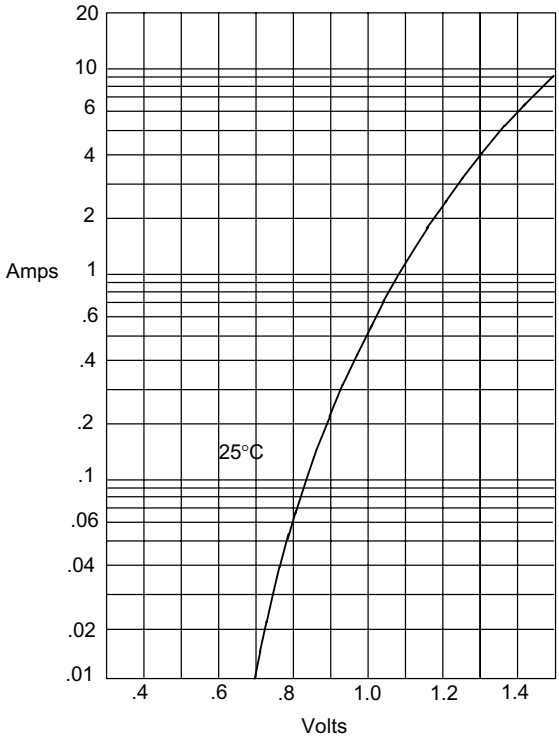
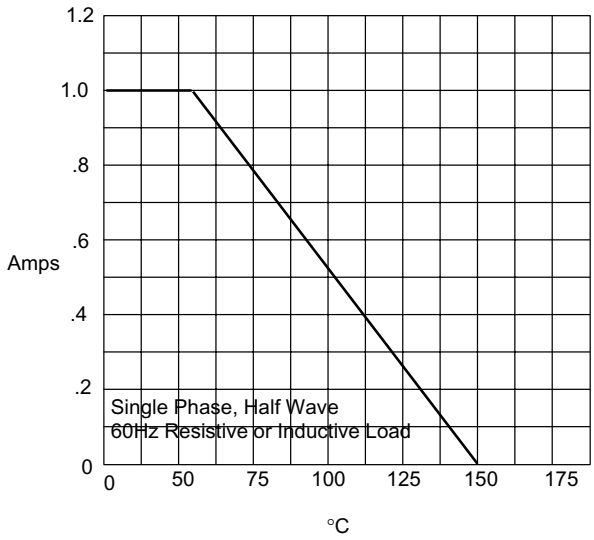


Figure 1
Typical Forward Characteristics



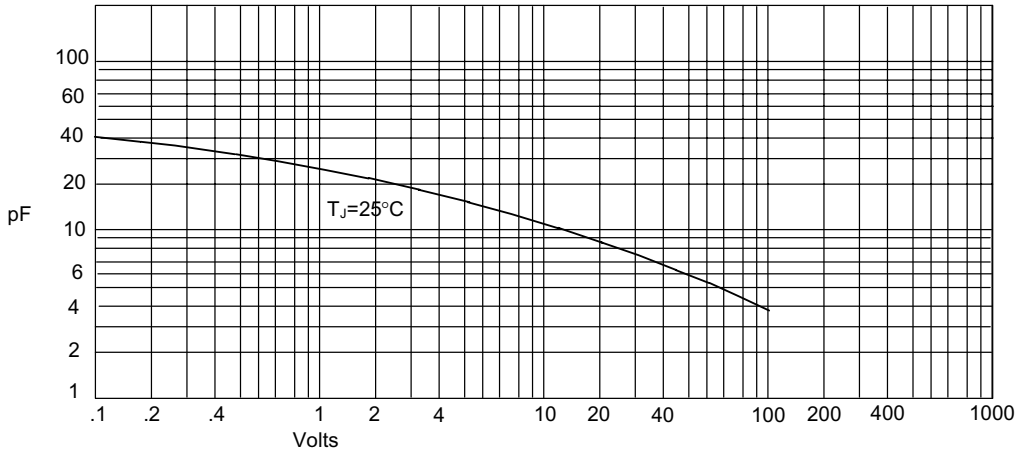
Instantaneous Forward Current - Amperes *versus*
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve



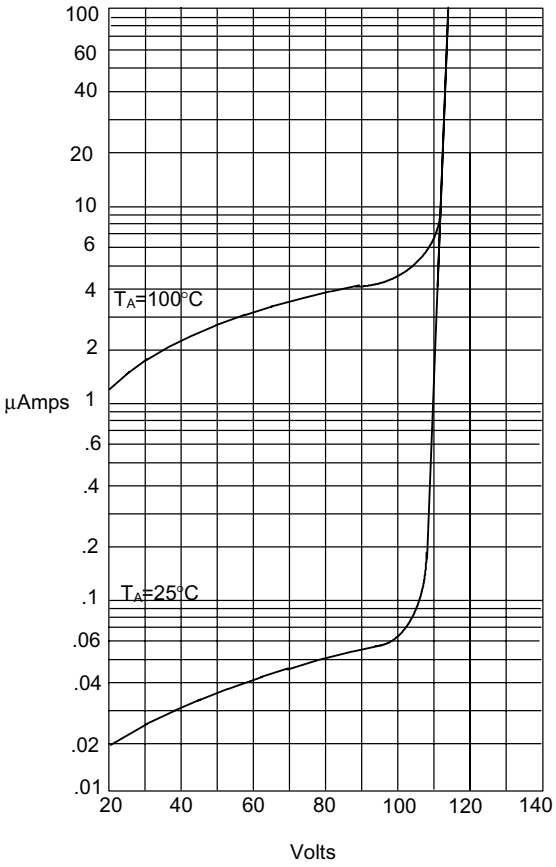
Average Forward Rectified Current - Amperes *versus*
Ambient Temperature -°C

Figure 3
Junction Capacitance



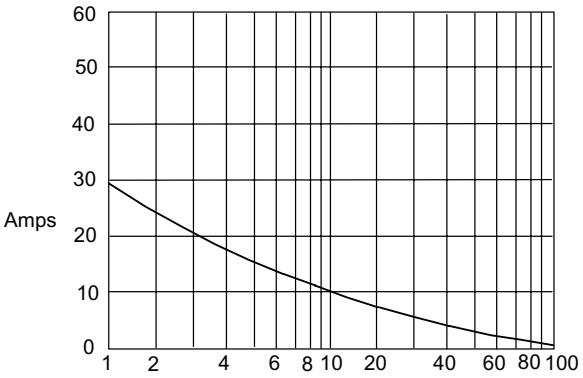
Junction Capacitance - pF *versus*
Reverse Voltage - Volts

Figure 4
Typical Reverse Characteristics



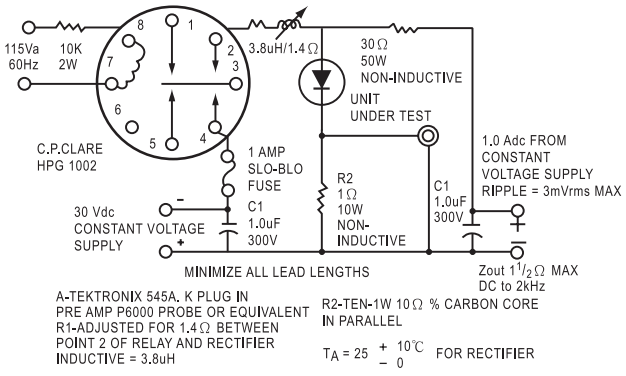
Instantaneous Reverse Leakage Current - MicroAmperes *versus*
Percent Of Rated Peak Reverse Voltage - Volts

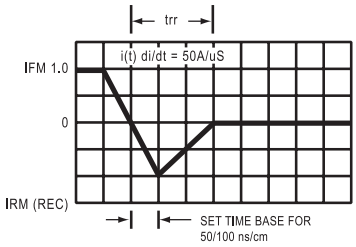
Figure 5
Peak Forward Surge Current



Peak Forward Surge Current - Amperes *versus*
Number Of Cycles At 60Hz - Cycles

Figure 6
Reverse Recovery Time Characteristic And Test Circuit Diagram





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/Reel

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

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