



Micro Commercial Components

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**M1  
THRU  
M7**

## Features

- Case Material: Molded Plastic. UL Flammability Classification Rating 94V-0 and MSL rating 1
- Easy Pick And Place
- High Temp Soldering: 260°C for 10 Seconds At Terminals
- Lead Free Finish/Rohs Compliant (Note1) ("P" Suffix designates Compliant. See ordering information)

## 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 Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
M1	M1	50V	35V	50V
M2	M2	100V	70V	100V
M3	M3	200V	140V	200V
M4	M4	400V	280V	400V
M5	M5	600V	420V	600V
M6	M6	800V	560V	800V
M7	M7	1000V	700V	1000V

## Electrical Characteristics @ 25°C Unless Otherwise Specified

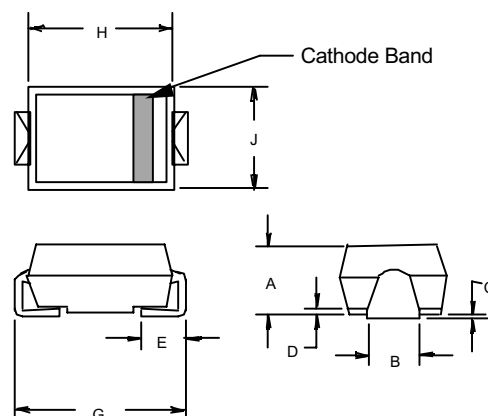
Average Forward current	$I_{F(AV)}$	1.0A	$T_a = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine,
Maximum Instantaneous Forward Voltage	$V_F$	1.1V	$I_{FM} = 1.0A$ ; $T_J = 25^\circ\text{C}^*$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	10 $\mu\text{A}$ 50 $\mu\text{A}$	$T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$
Typical Junction Capacitance	$C_J$	15pF	Measured at 1.0MHz, $V_R=4.0V$

\*Pulse test: Pulse width 300  $\mu\text{sec}$ , Duty cycle 2%

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

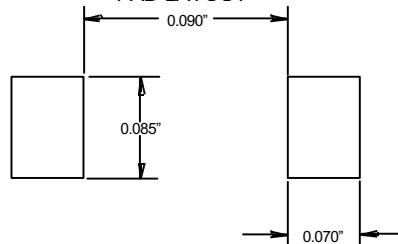
**1.0 Amp  
Silicon Rectifier  
50 to 1000 Volts**

**DO-214AC  
(SMAE)**



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.079	.096	2.01	2.44	
B	.050	.075	1.27	1.90	
C	.002	.008	.05	.20	
D	—	.02	—	.51	
E	.030	.060	.76	1.52	
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**



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# M1 thru M7



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Figure 1  
Typical Forward Characteristics

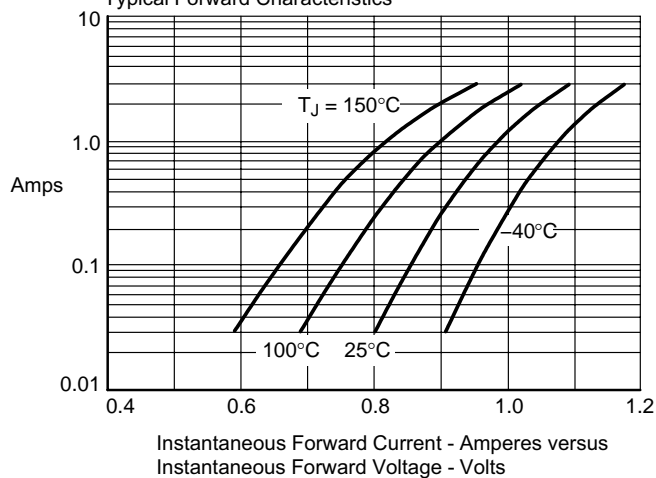


Figure 2  
Maximum Forward Surge Current

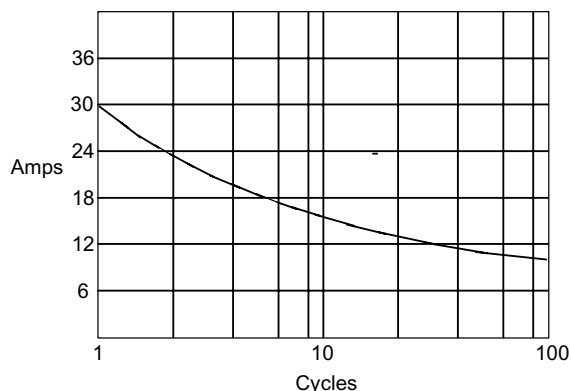


Figure 3  
Forward Derating Curve

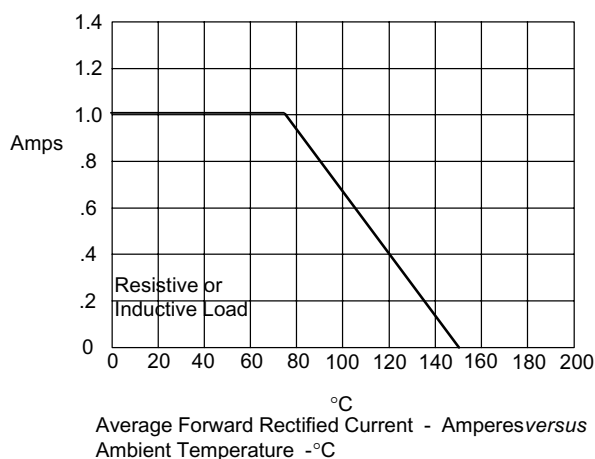
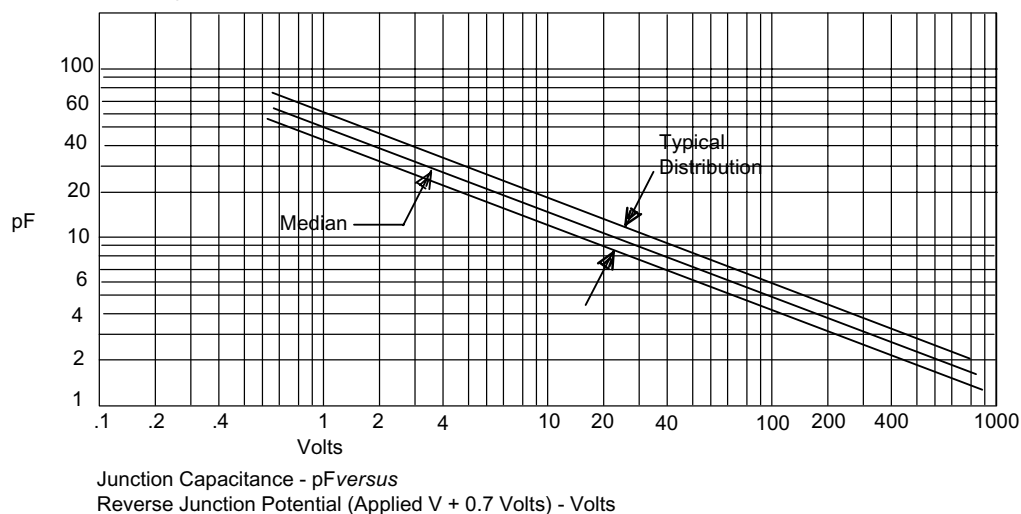
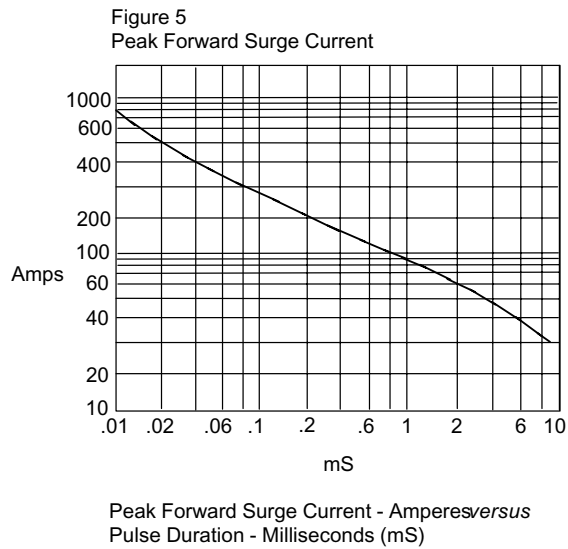


Figure 4  
Junction Capacitance



M1 thru M7





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## Ordering Information

Device	Packing
(Part Number)-TP	Tape&Reel;2Kpcs/Reel (7" );6Kpcs/Reel(13")

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