



Micro Commercial Components  
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# GP10A THRU GP10M

## 1.0 Amp Glass Passivated Junction Rectifiers 50 to 1000 Volts

### Features

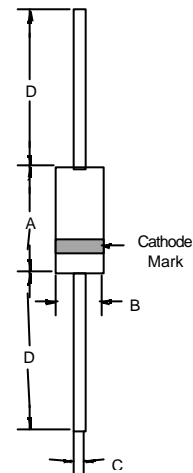
- High temperature metallurgically bonded construction
- Glass passivated cavity-free junction, Plastic Case
- 1.0 ampere operation at  $T_A=75^\circ\text{C}$  and  $55^\circ\text{C}$  with no thermal runaway.
- Typical  $r_k$  less than  $0.1\mu\text{A}$

### Maximum Ratings

- Operating Temperature:  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$
- Storage Temperature:  $-55^\circ\text{C}$  to  $+150^\circ\text{C}$
- Typical Thermal Resistance:  $55^\circ\text{C/W}$  Junction to Ambient

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
GP10A	50V	35V	50V
GP10B	100V	70V	100V
GP10D	200V	140V	200V
GP10G	400V	280V	400V
GP10J	600V	420V	600V
GP10K	800V	560V	800V
GP10M	1000V	700V	1000V

### DO-41



### Electrical Characteristics @ $25^\circ\text{C}$ Unless Otherwise Specified

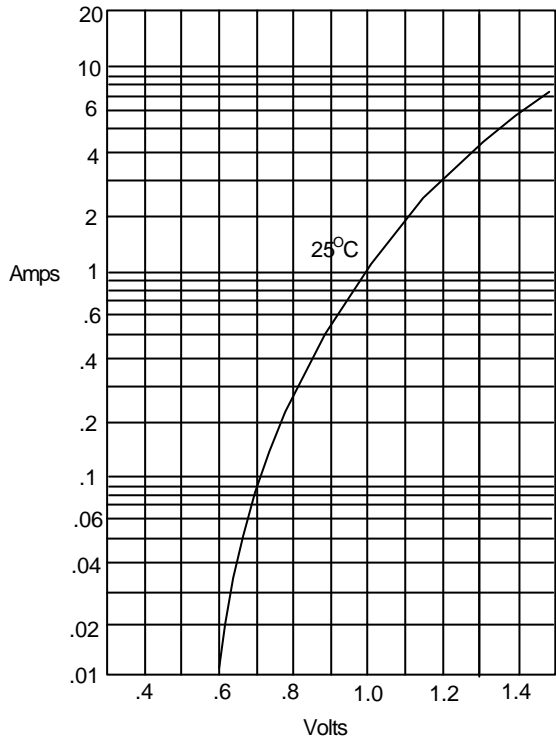
Maximum Average Forward Current	$I_{F(AV)}$	1.0 A	$T_A = 75^\circ\text{C}$
Peak Forward Surge Current	$I_{FSM}$	30A	8.3ms, half sine
Maximum Instantaneous Forward Voltage GP10A -10J GP10K-10M	$V_F$	1.1V 1.2V	$I_{FM} = 1.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	$I_R$	5.0uA 50uA	$T_A = 25^\circ\text{C}$ $T_A = 125^\circ\text{C}$
Typical Junction Capacitance GP10A -10J GP10K-10M	$C_J$	8.0pF 7.0pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

### DIMENSIONS

DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

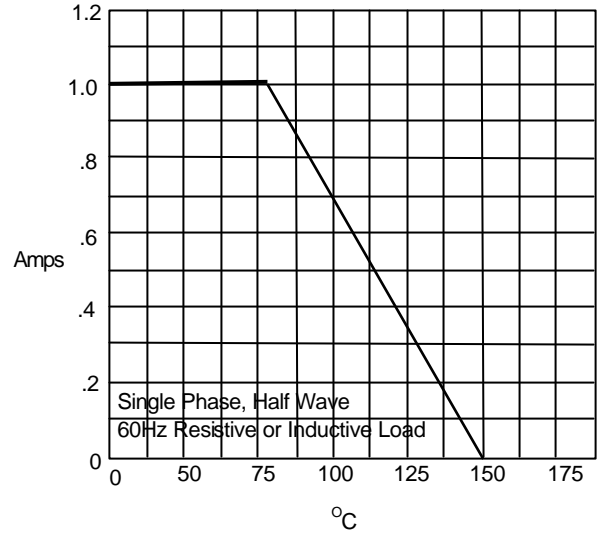
# GP10A thru GP10M

Figure 1  
Typical Forward Characteristics



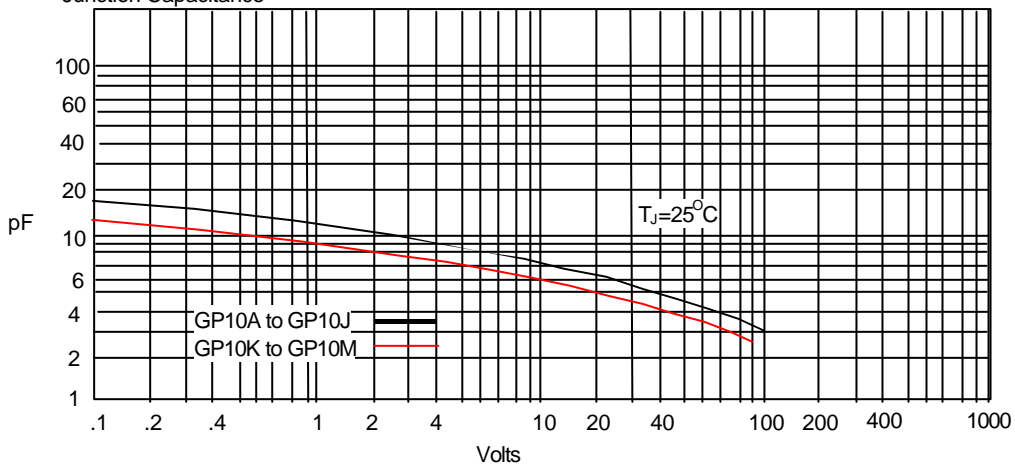
Instantaneous Forward Current - Amperes versus  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



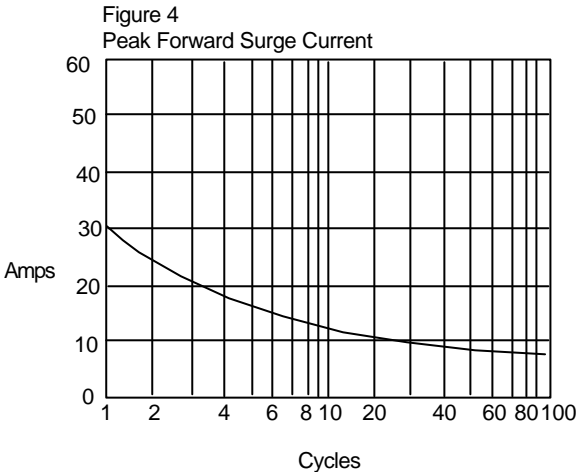
Average Forward Rectified Current - Amperes versus  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



Junction Capacitance - pF versus  
Reverse Voltage - Volts

GP10A thru GP10M



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