



**TAYCHIPST**

MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

**MPG06A THRU MPG06M**

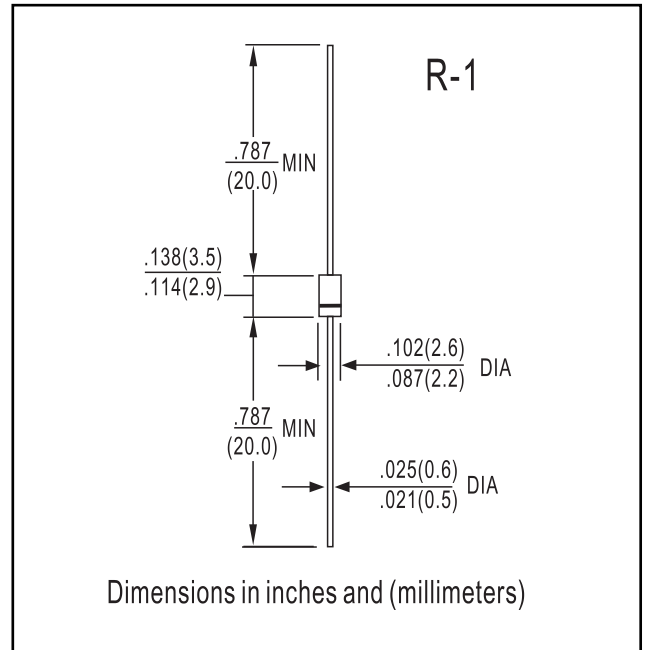
50V-1000V 1.0A

**FEATURES**

- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ Low forward voltage, high current capability
- ◆ Glass passivated chip junction
- ◆ High surge capability
- ◆ Typical  $I_R$  less than  $0.1\mu A$
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

**Mechanical Data**

**Case:** Molded plastic over passivated chip  
**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026  
**Polarity:** Color band denotes cathode end  
**Mounting Position:** Any  
**Weight:** 0.0064 ounce, 0.181 gram



**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

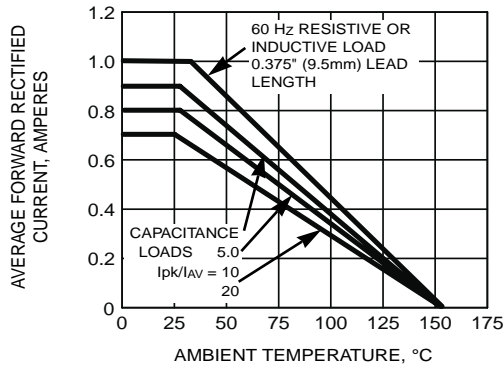
	SYMBOLS	MPG 06A	MPG 06B	MPG 06D	MPG 06G	MPG 06J	MPG 06K	MPG 06M	UNITS
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A=25^\circ C$	$I_{(AV)}$	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40.0							Amps
Maximum instantaneous forward voltage at 1.0A	$V_F$	1.1							Volts
Maximum DC reverse current at rated DC blocking voltage	$I_R$	$T_A=25^\circ C$ : 5.0 $T_A=125^\circ C$ : 50.0							$\mu A$
Typical junction capacitance (NOTE 1)	$C_J$	10.0							pF
Typical reverse recovery time (NOTE 2)	$t_{rr}$	0.6							$\mu s$
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$ $R_{\theta JL}$	67.0 30.0							$^\circ C/W$
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150							$^\circ C$

**NOTES:**

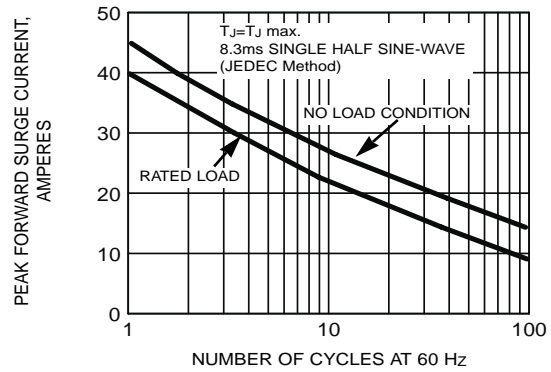
- (1) Measured at 1.0 MHz and applied reverse voltage of 4.0 Volts
- (2) Reverse recovery test conditions:  $I_F=0.5A$ ,  $I_R=1.0A$ ,  $I_{rr}=0.25A$
- (3) Thermal resistance from junction to ambient and from junction to lead at 0.375" (9.5mm) lead length, P.C.B. mounted with 0.22 x 0.22" (5.5 x 5.5mm) copper pads

**RATINGS AND CHARACTERISTIC CURVES MPG06A THRU MPG06M**

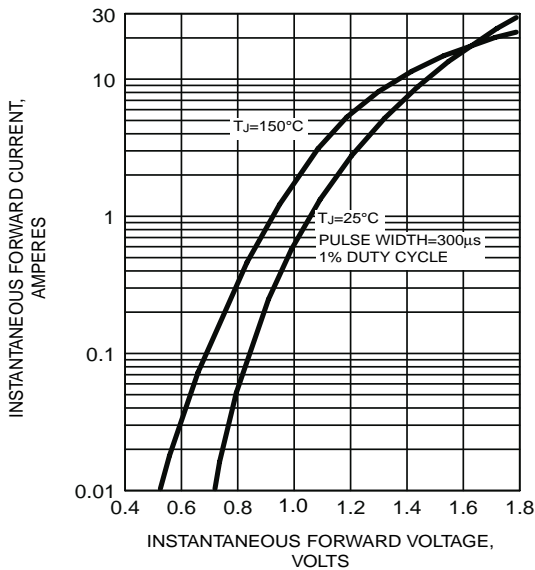
**FIG. 1 - FORWARD CURRENT DERATING CURVE**



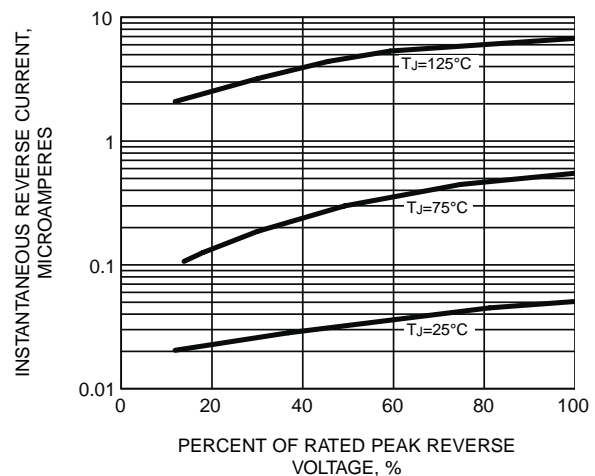
**FIG. 2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT**



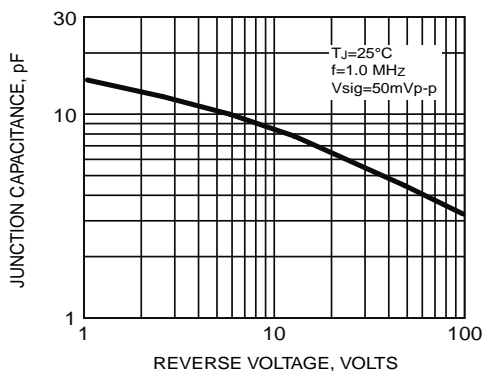
**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**



**FIG. 5 - TYPICAL JUNCTION CAPACITANCE**



**FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE**

