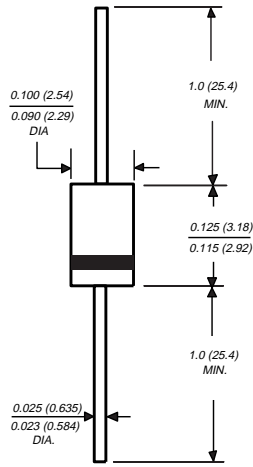


MPG06A THRU MPG06M

MINIATURE GLASS PASSIVATED JUNCTION PLASTIC RECTIFIER

Reverse Voltage - 50 to 1000 Volts Forward Current - 1.0 Ampere

Case Style MPG06



Dimensions are in inches and (millimeters)

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: $250^\circ C/10$ 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 $25^\circ C$ 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	5.0 50.0							μA
Typical junction capacitance (NOTE 1)	C_J	10.0							pF
Typical reverse recovery time (NOTE 2)	t_{rr}	0.6							μs
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 $0.22 \times 0.22"$ (5.5 x 5.5mm) copper pads

RATINGS AND CHARACTERISTIC CURVES MPG06A THRU MPG06M

FIG. 1 - FORWARD CURRENT DERATING CURVE

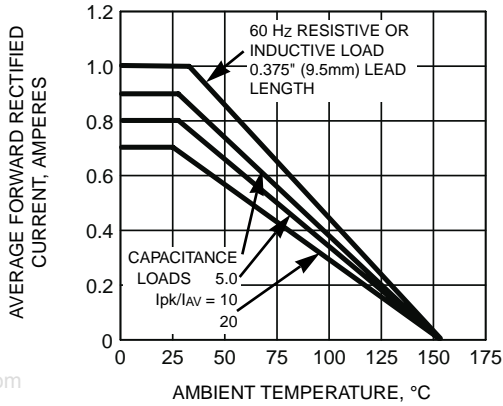


FIG. 2 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

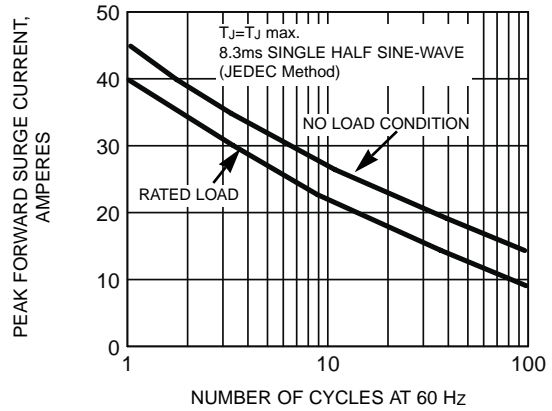


FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

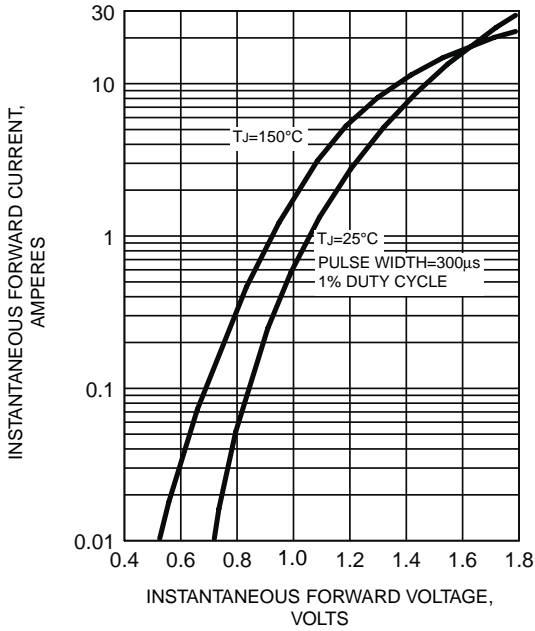


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS

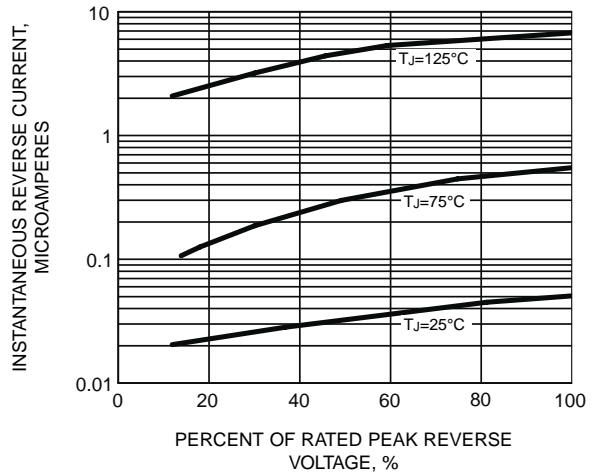


FIG. 5 - TYPICAL JUNCTION CAPACITANCE

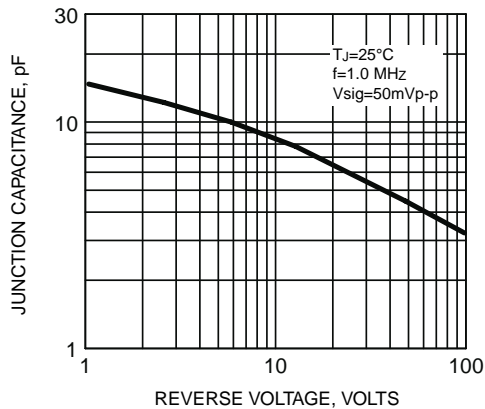


FIG. 6 - TYPICAL TRANSIENT THERMAL IMPEDANCE

