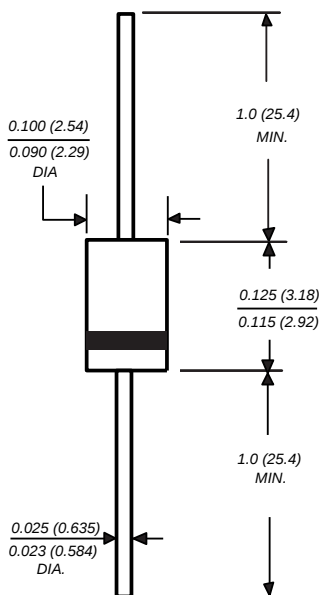




Miniature Glass Passivated Fast Switching Plastic Rectifier

Reverse Voltage 50 to 600V
Forward Current 1.0A

Case Style MPG06



Dimensions in inches and (millimeters)

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Low forward voltage drops, high current capability
- Glass passivated chip junction
- High surge capability
- Typical I_R less than 0.1 μ 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 oz., 0.181 g

Packaging codes/options:

- 1/5K per Bulk Box
- 3/3K per Ammo Box (26mm Tape)
- 4/5.5K per 13" Reel (52mm Tape)
- 23/3K per Ammo Box (52mm Tape)
- 50/2.5K per Radial-Tape Ammo Box

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbol	RMPG 06A	RMPG 06B	RMPG 06D	RMPG 06G	RMPG 06J	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	V
Maximum DC blocking voltage	V_{DC}	50	70	200	400	600	V
Maximum average forward rectified current, 0.375" (9.5mm) lead length at $T_A=25^\circ\text{C}$	$I_{F(AV)}$	1.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	40					A
Typical thermal resistance ⁽¹⁾	$R_{\theta JA}$ $R_{\theta JL}$	67 30					$^\circ\text{C/W}$
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150					$^\circ\text{C}$

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbol	RMPG 06A	RMPG 06B	RMPG 06D	RMPG 06G	RMPG 06J	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.3					V
Maximum DC reverse current $T_A=25^\circ\text{C}$ at rated DC blocking voltage $T_A=125^\circ\text{C}$	I_R	5.0 50					μA
Typical junction capacitance at 4.0V, 1MHz	C_J	6.6					pF
Typical reverse recovery time at $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $t_{rr}=0.25\text{A}$	t_{rr}	150 200					ns

Notes:

(1) 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 ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Fig. 1 – Forward Current Derating Curve

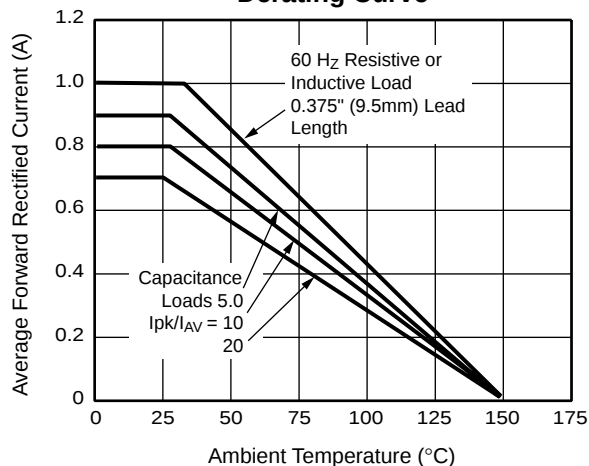


Fig. 2 – Maximum Peak Forward Surge Current

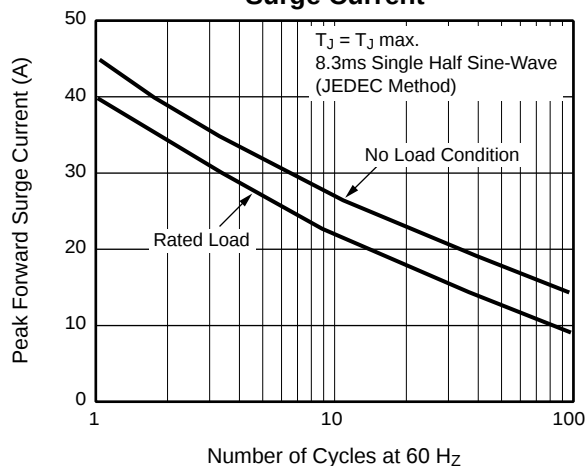


Fig. 3 – Typical Instantaneous Forward Characteristics

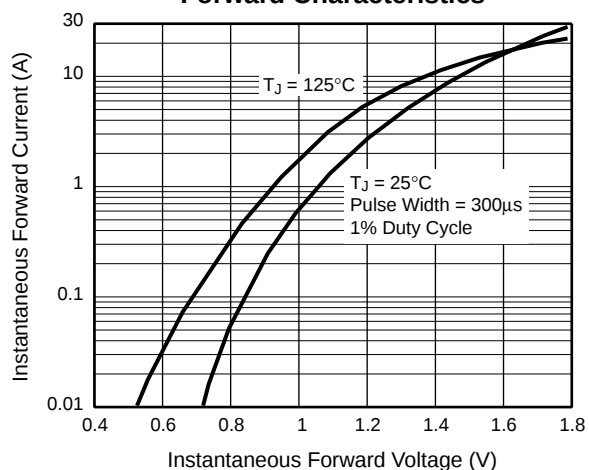


Fig. 4 – Typical Reverse Characteristics

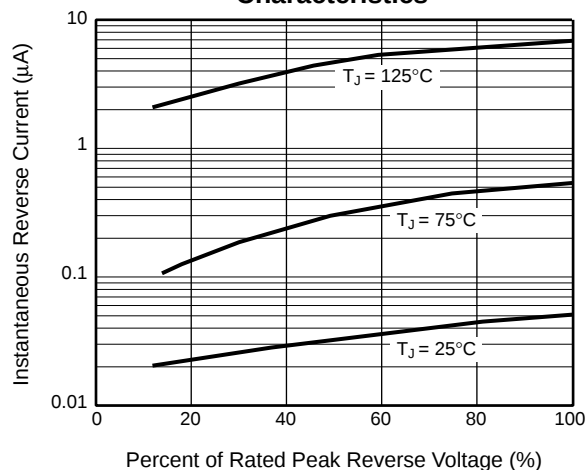


Fig. 5 – Typical Junction Capacitance Per Leg

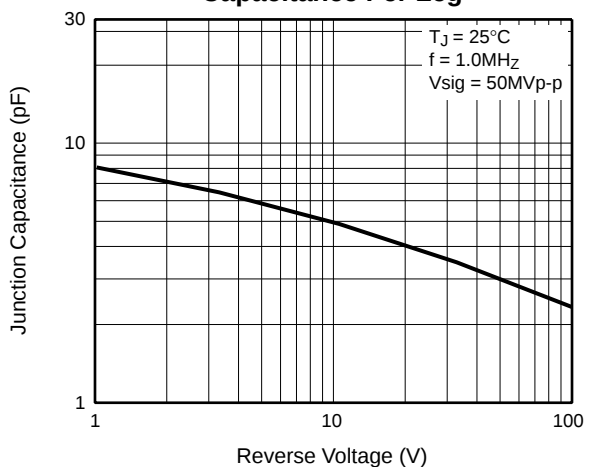


Fig. 6 – Typical Transient Thermal Impedance

