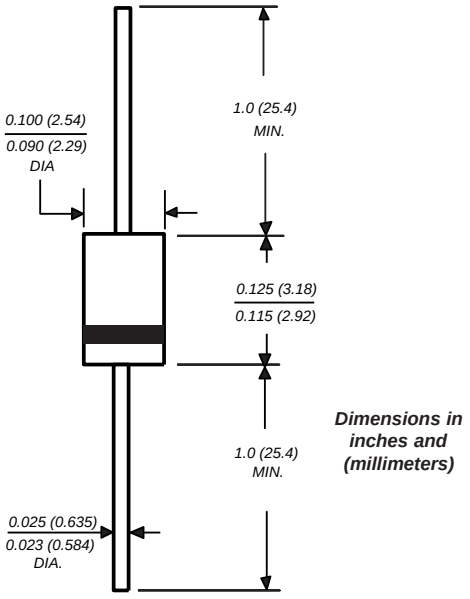
Vishay Semiconductors
formerly General Semiconductor

Miniature Glass Passivated Junction Plastic Rectifier

Reverse Voltage 50 to 1000V
Forward Current 1.0A

Case Style MPG06



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 0.1µA
- 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 glass 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

Maximum Ratings & Thermal Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbol	MPG 06A	MPG 06B	MPG 06D	MPG 06G	MPG 06J	MPG 06K	MPG 06M	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at T_A = 25°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 (Note 1)	$R_{\Theta JA}$ $R_{\Theta JL}$	67 30							°C/W
Operating junction and storage temperature range	T_J, T_{STG}	–55 to +150							°C

Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

	Symbol	MPG 06A	MPG 06B	MPG 06D	MPG 06G	MPG 06J	MPG 06K	MPG 06M	Unit
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current at rated DC blocking voltage T_A = 25°C T_A = 125°C	I_R	5.0 50							µA
Typical reverse recovery time I_F = 0.5A, I_R = 1.0A, I_{rr} = 0.25A	t_{rr}	0.6							µs
Typical junction capacitance at 4.0V, 1MHz	C_J	10							pF

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°C unless otherwise noted)