



Silicon Bridge Rectifiers

MP1000-G THRU MP1010-G (RoHS Device)

Reverse Voltage: 50 ~ 1000 Volts

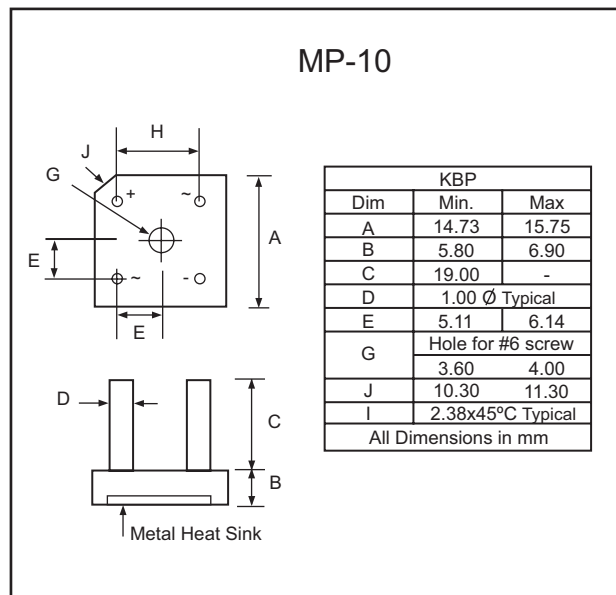
Forward Current: 10 Amp

Features:

- Diffused Junction
- High Current Capability
- High Case Dielectric Strength
- High Surge Current Capability
- Ideal for Printed Circuit Board Application
- Plastic Material has Underwriters
- Laboratory Flammability Classification 94V-0

Mechanical Data:

- Case: Molded Plastic
- Terminals: Plated Leads Solderable Per MIL STD-202, Method 208
- Weight: 5.4 grams (approx.)
- Mounting position: Through Hole for #6 Screw



Maximum Ratings and Electrical Characteristics

Single Phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate currently by 20%.

Characteristics	Symbol	MP 1000-G	MP 1001-G	MP 1002-G	MP 1004-G	KBP 1006-G	KBP 1008-G	KBP 1010-G	UNIT
Peak Repetitive Reverse Voltage	V_{RRM}								
Working Peak Reverse Voltage	V_{RWM}	50	100	200	400	600	800	1000	V
DC Blocking Voltage	V_R								
RMS Reverse Voltage	$V_{R(RMS)}$	35	70	140	280	420	560	700	V
Average Rectified Output Current (Note1) @ $T_A = 50^\circ\text{C}$	I_o	10							A
Non-Repetitive Peak Forward Surge Current 8.3ms Single Half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	200							A
Forward Voltage (per element) @ $I_F = 2.0\text{A}$	V_{FM}	1.1							V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	I_{RM}	10 1.0							μA
Rating for Fusing ($t < 8.3\text{ms}$) (Note2)	I^2t	64							A^2S
Typical Thermal Resistance (Note4)	$R_{\theta JA}$	7.5							K/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +160							$^\circ\text{C}$
Typical Junction Capacitance (Note3)	C_J	110							pF

- Note:
1. Non-repetitive for $t > 1\text{ms}$ and $< 8.3\text{ms}$.
 2. Thermal resistance junction to ambient mounted on PC board with 13.0 x 13.0 x 0.03 mm thick land areas.
 3. Measured at 1.0MHz and applied reverse voltage of 4.0V D.C.
 4. Thermal resistance junction to case per element.

"-G" suffix designated RoHS compliant version



Rating and Characteristic Curve (MP1000-G thru MP1010-G)

