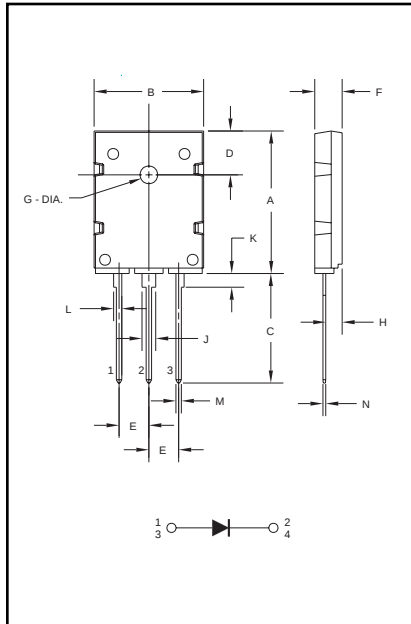
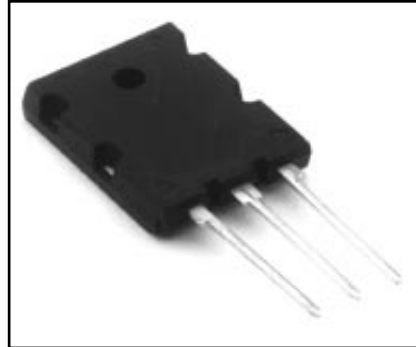


Super Fast Recovery Single Diode 50 Amperes/600 Volts



Outline Drawing

Dimension	Inches	Millimeters
A	1.02±0.02	26.0±0.5
B	0.81 Max.	20.5 Max.
C	0.79 Min.	20.0 Min.
D	0.24±0.008	6.0±0.2
E	0.214±0.012	5.45±0.3
F	0.20±0.012	5.0±0.3
G	0.214±0.012 Dia.	3.2±0.2
H	0.12±0.012	3.0±0.3
J	0.10±0.012	2.5±0.3
K	0.10	2.5
L	0.08±0.012	2.0±0.3
M	0.04±0.008	1.0±0.2
N	0.02±0.008	0.6±0.2



RM50HG-12S
Super Fast Recovery
Single Diode
50 Amperes/600 Volts

Description:

Powerex Super Fast Recovery Diodes are designed for use in applications requiring fast switching.

Features:

- ☐ Non-Isolated Package
- ☐ Planar Chips
- ☐ $t_{rr} = 200$ ns Max.

Applications:

- ☐ Snubber Circuits
- ☐ Switching Power Supplies
- ☐ Free Wheeling

Ordering Information:

Select the complete eight digit part number you desire from the table below.

Example: RM50HG-12S is a 600 Volt, 50 Ampere Super Fast Recovery Single Diode.

Type	Current Rating Amperes	Voltage Volts (x50)
RM	50	12



Powerex, Inc., 200 Hillis Street, Youngwood, Pennsylvania 15697-1800 (724) 925-7272

RM50HG-12S
Super Fast Recovery
Single Diode
50 Amperes/600 Volts

Absolute Maximum Ratings

Characteristics	Symbol	Conditions	RM50HG-12S	Units
Peak Forward Blocking Voltage	V_{DRM}	—	600	Volts
Peak Reverse Blocking Voltage (Non-Repetitive)	V_{RRM}	—	720	Volts
DC Reverse Blocking Voltage	$V_{R(DC)}$	—	480	Volts
DC Current, $T_C = 80^\circ\text{C}$ (Resistive Load)	$I_{F(DC)}$	—	50	Amperes
Peak Half-Cycle Surge (Non-Repetitive) On-State Current (60Hz)	I_{FSM}	—	1000	Amperes
I^2t for Fusing, (8.3 milliseconds)	I^2t	—	—	A^2sec
Storage Temperature	T_{STG}	—	-40 to 125	$^\circ\text{C}$
Operating Temperature	T_j	—	-40 to 150	$^\circ\text{C}$
Maximum Mounting Torque M3 Mounting Screw	—	—	10	kg.-cm.
Weight (Typical)	—	—	10	Grams

Electrical and Thermal Characteristics, $T_j = 25^\circ\text{C}$ unless otherwise specified

Characteristics	Symbol	Test Conditions	RM50HG-12S	Units
Blocking State Maximums				
Reverse Leakage Current, Peak	I _{RRM}	V _{RRM} applied, T _j = 150°C	1.0	mA
		V _{RRM} applied, T _j = 25°C	0.1	mA
Conducting State Maximums				
Forward Voltage Drop	V _{FM}	T _j = 25°C, I _{FM} = 200A	4.0	Volts
Switching Minimums				
Reverse Recovery Time	t _{rr}	T _j = 25°C, I _{FM} = 100A	0.2	μs
Reverse Recovery Charge	Q _{rr}	di/dt = -1000A/μs, V _R = 300V	—	μC
Lead Integrity				
	—	Tension Load: 25 kg	30.0	s
	—	Bending Load: 1 kg bent to 90°	2.0	times
Thermal Maximums				
Thermal Resistance, Junction-to-Case	R _{θ(J-C)}	Diode	0.5	°C/Watt
Contact Thermal Resistance, Case-to-Fin	R _{θ(C-S)}	Case to Fin, Thermal Grease Applied	0.5	°C/Watt

*Maximum ratings unless otherwise specified