

# **M50 DIODE SERIES**

POWER MODULES



### **Features**

- High Surge Current Rectifier Circuits
- 5 Different Circuits to Choose from
- Up to 1600 Volt Blocking Standard
- UL Recognized E72445

# **SPECIFICATIONS**

# Electrical

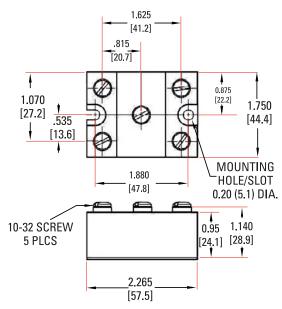
Part Number	Symbol	M5060	M50100
Maximum DC Output Current (Tc= 85°C)	I <sub>D</sub>	60 A	100 A
Maximum Voltage Drop @ Amps Peak	V <sub>F</sub>	1.35V @ 50A	1.2V @ 100 A
Operating Junction Temperature Range	T <sub>J</sub>	-40 - 125°C	-40 - 125°C
Repetitive Peak Reverse Voltage (AC Line Nominal) [Vpk] VRRMS	$V_RMS$	400 (120 VAC)	
		600 (240 VAC)	
		1000 (380 VAC)	
		1200 (480 VAC)	
		1400 (530 VAC)	
		1600 (600 VAC)	
Maximum Non-Repetitive Surge Current (1/2 Cycle, 60 Hz) [A]	I <sub>TSM</sub>	800	1500
Maximum I <sup>2</sup> t for Fusing (t=8.3ms)[A <sup>2</sup> sec]	l <sup>2</sup> t	2650	9350
Maximum Thermal Resistance, Junction to Ceramic Base per Chip [°C/W]	R <sub>JC</sub>	0.45°C/W	0.3°C/W
Isolation Voltage [Vrms]	V <sub>ISOL</sub>	2500	

# General

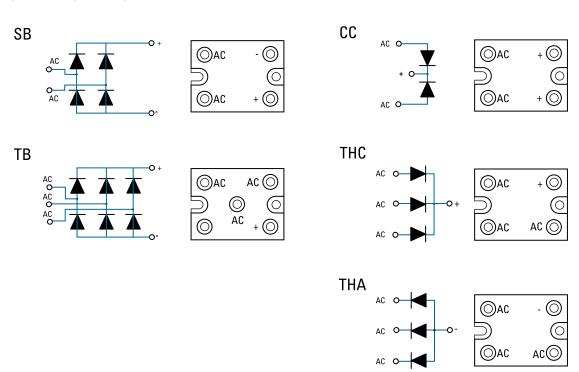
Weight (typical)	4.5 oz (158g)

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## EQUIVALENT CIRCUIT DIAGRAMS / MECHANICAL SPECIFICATIONS



# CIRCUIT DIAGRAMS

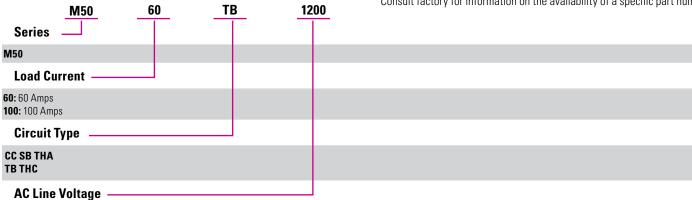


# ORDERING OPTIONS

### Example : M5060TB1200

NOTE: Not all combinations are available.

Consult factory for information on the availability of a specific part number.



**400:** 120 VAC **600:** 240 VAC **1000:** 380 VAC **1200:** 480 VAC **1400:** 530 VAC **1600:** 600 VAC



### **AGENCY APPROVALS & CERTIFICATIONS**







#### RISK OF MATERIAL DAMAGE AND HOT ENCLOSURE

- $\bullet\,$  The product's side panels may be hot, allow the product to cool before touching
- Follow proper mounting instructions including torque values
- Do not allow liquids or foreign objects to enter this product

Failure to follow these instructions can result in serious injury, or equipment damage.



#### HAZARD OF ELECTRIC SHOCK, EXPLOSION OR ARC FLASH

- Disconnect all power before installing or working with this equipment
- Verify all connections and replace all covers before turning on power

Failure to follow these instructions will result in death or serious injury.

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