



# GMFF70024

## FAST RECOVERY DIODE MODULE

International standard package  
Ultra fast recovery diodes  
Ideal for welding applications

<b>VOLTAGE UP TO</b>	<b>600 V</b>
<b>MAXIMUM CURRENT (20 kHz)</b>	<b>240 A</b>
<b>SURGE CURRENT</b>	<b>450 kA</b>

### BLOCKING CHARACTERISTICS

Characteristic	Conditions	Value
VRRM	Repetitive peak reverse voltage	600 V
VRSM	Non-repetitive peak reverse voltage	700 V
IRRM	Repetitive peak reverse current, max.	VRRM, single phase, half wave, T <sub>j</sub> = 25 °C
IRRM	Repetitive peak reverse current, max.	VRRM, single phase, half wave, T <sub>j</sub> = 150 °C

### FORWARD CHARACTERISTICS

I <sub>F(AV)</sub>	Average forward current	Sine wave, 180° conduction, T <sub>c</sub> = 100 °C	120 A
I <sub>FRM</sub>	Maximum repetitive current	Repetitive square wave 20 kHz	240 A
I <sub>FSM</sub>	Surge forward current	Non rep. half sine wave, 50 Hz, V <sub>R</sub> = 0 V, T <sub>j</sub> = 25 °C	450 A
I <sup>2</sup> t	I <sup>2</sup> t for fusing coordination		1000 A <sup>2</sup> s
V <sub>FM</sub>	Peak forward voltage, max	Forward current I <sub>F</sub> = 120 A, T <sub>j</sub> = 25 °C	1.75 V

### SWITCHING CHARACTERISTICS

t <sub>rr</sub>	Reverse recovery time	T <sub>j</sub> = 25 °C, I <sub>F</sub> = 1 A, di/dt = -100 A/μs	70 ns
		V <sub>R</sub> = 30 V	

### THERMAL AND MECHANICAL CHARACTERISTICS

R <sub>th(j-c)</sub>	Thermal resistance (junction to case)		0.22 °C/W
R <sub>th(c-h)</sub>	Thermal resistance (case to heatsink)		0.12 °C/W
T <sub>jmax</sub>	Max operating junction temperature		150 °C
T <sub>stg</sub>	Storage temperature		-40 / 150 °C
M	Mounting torque		10 N·m
mass			100 g