



GMG1...N..

SINGLE-PHASE RECTIFIER BRIDGE

Low thermal resistance
Electrically insulated package
Versatile pin out
High output current

VOLTAGE UP TO 1600 V
OUTPUT CURRENT UP TO 60 A

BLOCKING CHARACTERISTICS

GMG116N40 GMG116N60

Characteristic	Conditions	Value	Value
V _{RRM}	Repetitive peak reverse voltage	1200-1600V	1200-1600V
V _{RSM}	Repetitive peak off-state voltage	1700 V	1700 V
I _{RRM}	Repetitive peak reverse current, max.	V _R , single phase, half wave, T _j = T _{jmax}	2 mA
V _{INS}	RMS insulation voltage	Any terminal to base - 60 s	3000 V

FORWARD CHARACTERISTICS

I _{O(AV)}	Average DC output current	T _c = 80 °C	40 A	60 A
I _{FSM}	Surge current	Non rep. half sine wave, 50 Hz,	360 A	540 A
I ² t	I ² t for fusing coordination	V _R = 0 V, T _j = T _{jmax}	0.648 kA ² s	1.458 kA ² s
V _{F(TO)}	Threshold voltage	T _j = T _{jmax}	1.0 V	1.0 V
r _F	Forward slope resistance	T _j = T _{jmax}	7.52 mΩ	3.91 mΩ
V _{FM}	Forward voltage, max	Forward current I _F = 50 A, T _j = T _{jmax}	1.38 V	1.20 V

THERMAL AND MECHANICAL CHARACTERISTICS

R _{th(j-c)}	Thermal resistance (junction to case)	Per junction / per bridge	1.5/0.37 °C/W	1.3/0.32 °C/W
R _{th(c-h)}	Thermal resistance (case to heatsink)		0.12 °C/W	0.12 °C/W
T _{jmax}	Operating junction temperature		-40 / 150 °C	-40 / 150 °C
F	Mounting torque +/- 10%		4.5 N-m	4.5 N-m
	Mass		90 g	90 g

Voltage rating

Type number	Voltage code	V _{RRM}	V _{RSM}
GMG1	12	1200V	1300V
	14	1400V	1500V
	16	1600V	1700V

