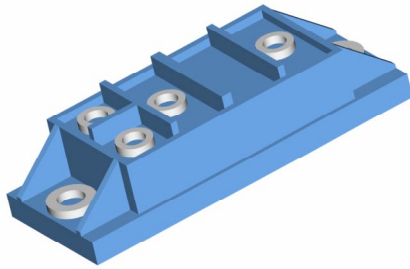


GMG1xxN60

SINGLE-PHASE RECTIFIER BRIDGE



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

VOLTAGE UP TO **1200-1600V V**
AVERAGE OUTPUT CURRENT **60 A**

BLOCKING CHARACTERISTICS

| Characteristic | | Conditions | Value |
|----------------|---------------------------------------|---|------------|
| V_{RRM} | Repetitive peak reverse voltage | | 1200-1600V |
| V_{RSM} | Repetitive peak off-state voltage | | 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

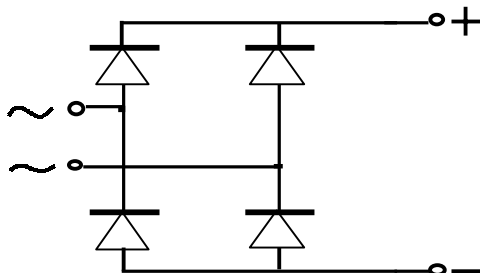
| | | | |
|-------------|---------------------------------|---|-----------------------------|
| $I_{O(AV)}$ | Average DC output current | $T_c = 80\text{ °C}$ - Solder connection | 60 A |
| I_{FSM} | Surge current | Non rep. half sine wave, 50 Hz, $V_R = 0\text{ V}$, $T_j = T_{jmax}$ | 540 A |
| I^2t | $I^2 t$ for fusing coordination | Non rep. half sine wave, 50 Hz, $V_R = 0\text{ V}$, $T_j = T_{jmax}$ | 1.458 kA^2s |
| $V_{F(TO)}$ | Threshold voltage | $T_j = T_{jmax}$ | 1 V |
| r_F | Forward slope resistance | $T_j = T_{jmax}$ | 3.91 $\text{m}\Omega$ |
| V_{FM} | Forward voltage, max | Forward current $I_F = 50\text{ A}$, $T_j = 25\text{ °C}$ | 1.2 V |

THERMAL AND MECHANICAL CHARACTERISTICS

| | | | |
|---------------|---------------------------------------|---------------------------|------------------------|
| $R_{th(j-c)}$ | Thermal resistance (junction to case) | Per junction / per bridge | 1.3/0.32 °C/W |
| $R_{th(c-h)}$ | Thermal resistance (case to heatsink) | | 0.15 °C/W |
| T_{jmax} | Operating junction temperature | | -40 / 150 °C |
| F | Mounting torque +/- 10% | | 4.5 N·m |
| | Mass | | 90 g |

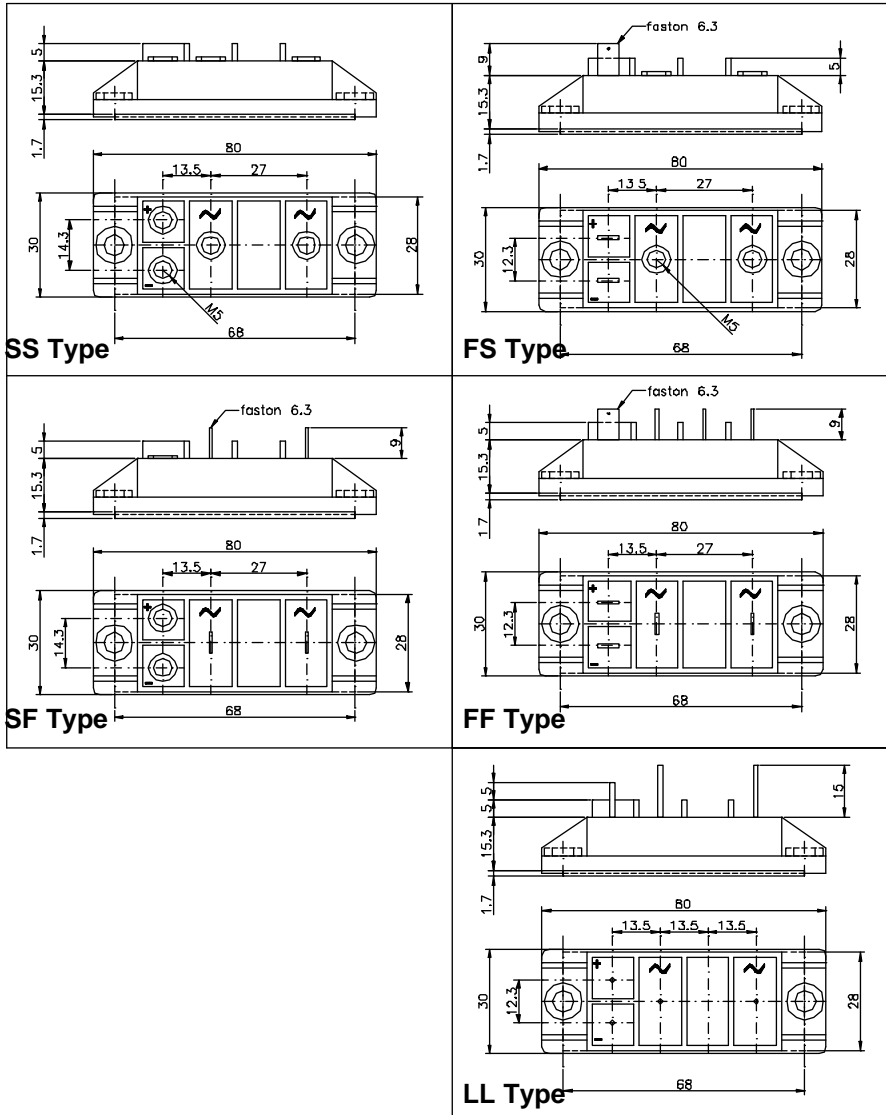
Voltage rating

| Type number | Voltage code | V_{RRM} max | V_{RSM} |
|-------------|--------------|---------------|-----------|
| GMG1 | 12 | 1200V | 1300V |
| | 14 | 1400V | 1500V |
| | 16 | 1600V | 1700V |



dimensions in mm

Outline



Ordering information

| | | | | |
|-------------|-----------|----------|-----------|-----------|
| GMG1 | XX | N | 60 | YY |
| 1 | 2 | 3 | 4 | 4 |

- 1: Single phase Rectifier Bridge
- 2: Voltage code: Voltage Rating (VRRM) = Voltage code * 100
- 3: Output Current
- 4: Pin out (see Table)

| | | |
|-----------|---------------------|---------------------|
| FF | Faston AC | Faston DC |
| SF | Screw AC | Faston DC |
| FS | Faston AC | Screw DC |
| SS | Screw AC | Screw DC |
| LL | Wire Lead AC | Wire Lead DC |