

MOTOROLA SC (DIODES/OPTO) 25E D ■ 6367255 0081200 5 ■

T-25-11

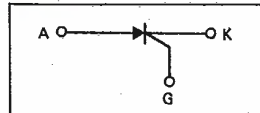
**MMBS5060
MMBS5061
MMBS5062**

Silicon Controlled Rectifiers

MAXIMUM RATINGS

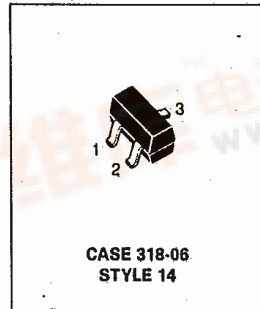
| Rating | Symbol | Value | Unit |
|---|------------------|-----------------|------|
| Forward Current Avg. (T _C = +67°C) | I _F | 510 | mA |
| Peak Forward Gate Voltage | V _{GFM} | 5 | V |
| Peak Forward Blocking Voltage RG = 1 k | V _{FXM} | 30 60 100 | V |

**SCRs
30 thru 100 VOLTS**



THERMAL CHARACTERISTICS

| Characteristic | Symbol | Max | Unit |
|---|-----------------------------------|------------|-------------|
| Total Device Dissipation FR-5 Board,* T _A = 25°C Derate above 25°C | P _D | 225 1.8 | mW mW/°C |
| Thermal Resistance Junction to Ambient | R _{θJA} | 556 | °C/mW |
| Total Device Dissipation Alumina Substrate,** T _A = 25°C Derate above 25°C | P _D | 300 2.4 | mW mW/°C |
| Thermal Resistance Junction to Ambient | R _{θJA} | 417 | °C/mW |
| Junction and Storage Temperature | T _J , T _{stg} | 150 | °C |



CASE 318-06
STYLE 14

3

*FR-5 = 1 x 0.75 x 0.62 in.

**Alumina = 0.4 x 0.3 x 0.024 in. 99.5% alumina.

ELECTRICAL CHARACTERISTICS (T_A = 25°C unless otherwise noted.)

| Characteristic | Symbol | Min | Max | Unit |
|----------------|--------|-----|-----|------|
|----------------|--------|-----|-----|------|

OFF CHARACTERISTICS

| | | | | | |
|---|--|------------------|-----|-----|----|
| Gate Trigger Voltage (R _L = 100 Ω, R _{GC} = 1 kΩ, T _C = 125°C) | Anode Voltage = MMBS5060 = 30 V MMBS5061 = 60 V MMBS5062 = 100 V | V _{GNT} | 0.1 | — | V |
| Peak Forward Blocking Current (R _{GC} = 1 kΩ, T _C = 125°C) | V _{FXM} = MMBS5060 = 30 V MMBS5061 = 60 V MMBS5062 = 100 V | I _{FXM} | — | 50 | μA |
| Peak Reverse Blocking Current (R _{GC} = 1 kΩ, T _C = 125°C) | V _{RXM} = MMBS5060 = 30 V MMBS5061 = 60 V MMBS5062 = 100 V | I _{RXM} | — | 50 | μA |
| Forward Voltage* (I _F = 1.2 A Peak) | | V _F | — | 1.7 | V |
| Gate Trigger Current** (R _{GC} = 1 kΩ, V _{AC} = 7 V, R _L = 100 Ω) | | I _{GT} | — | 200 | μA |
| Gate Trigger Voltage (R _{GC} = 1 kΩ, V _{AC} = 7 V, R _L = 100 Ω) | | V _{GT} | — | 0.8 | V |
| Holding Current (V _{AC} = 7 V, R _{GC} = 1 kΩ) | | I _H | — | 5 | mA |

*PW ≤ 1 ms, D.C. ≤ 1%.

**RGC current not included in measurement.

MOTOROLA THYRISTOR DEVICE DATA

3-319

