

T-25-11

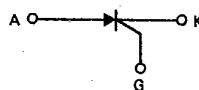
Silicon Controlled Rectifiers

MMBS5060
MMBS5061
MMBS5062

MAXIMUM RATINGS

Rating	Symbol	Value	Unit
Forward Current Avg. ($T_C = +67^\circ\text{C}$)	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

MMBS5060
MMBS5061
MMBS5062

SCRs
30 thru 100 VOLTS


THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Total Device Dissipation FR-5 Board,* $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	225 1.8	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	556	$^\circ\text{C}/\text{mW}$
Total Device Dissipation Alumina Substrate,** $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D	300 2.4	mW mW/ $^\circ\text{C}$
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	417	$^\circ\text{C}/\text{mW}$
Junction and Storage Temperature	T_J, T_{stg}	150	$^\circ\text{C}$

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

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


CASE 318-06
STYLE 14

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ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted.)

Characteristic	Symbol	Min	Max	Unit
OFF CHARACTERISTICS				
Gate Trigger Voltage ($R_L = 100 \Omega$, $R_{GC} = 1 \text{ k}\Omega$, $T_C = 125^\circ\text{C}$)	V_{GNT}	0.1	—	V
Anode Voltage = MMBS5060 = 30 V MMBS5061 = 60 V MMBS5062 = 100 V				
Peak Forward Blocking Current ($R_{GC} = 1 \text{ k}\Omega$, $T_C = 125^\circ\text{C}$)	I_{FXM}	—	50	μA
$V_{FXM} = \text{MMBS5061} = 60 \text{ V}$ $\text{MMBS5062} = 100 \text{ V}$				
Peak Reverse Blocking Current ($R_{GC} = 1 \text{ k}\Omega$, $T_C = 125^\circ\text{C}$)	I_{RXM}	—	50	μA
$V_{RXM} = \text{MMBS5061} = 60 \text{ V}$ $\text{MMBS5062} = 100 \text{ V}$				
Forward Voltage* ($I_F = 1.2 \text{ A Peak}$)	V_F	—	1.7	V
Gate Trigger Current** ($R_{GC} = 1 \text{ k}\Omega$, $V_{AC} = 7 \text{ V}$, $R_L = 100 \Omega$)	I_{GT}	—	200	μA
Gate Trigger Voltage ($R_{GC} = 1 \text{ k}\Omega$, $V_{AC} = 7 \text{ V}$, $R_L = 100 \Omega$)	V_{GT}	—	0.8	V
Holding Current ($V_{AC} = 7 \text{ V}$, $R_{GC} = 1 \text{ k}\Omega$)	I_H	—	5	mA

*PW $\leq 1 \text{ ms}$, D.C. $\leq 1\%$.

**RGC current not included in measurement.