

**Silicon Controlled Rectifier, 1200/ 20A
In Isolated TO247 Package**

- Pb-free lead finish; RoHS compliant


MAXIMUM RATINGS (per SCR), at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value	Units
Average on-state current $T_C = 85^\circ\text{C}, T_j = 125^\circ\text{C}$	$I_{T(AV)}$	20	A
Non-repetitive surge peak on-state current $T_j = 125^\circ\text{C}, t_p = 10 \text{ ms}$	I_{TSM}	340	
I^2t value for fusing $T_j = 125^\circ\text{C}, t_p = 10 \text{ ms}$	I^2t	574	A^2s
Rate of rise of on-state current $T_j = 125^\circ\text{C}$	dI/dt	200	$\text{A}/\mu\text{s}$
Peak gate current $T_j = 125^\circ\text{C}$	I_{GM}	2	A
Maximum repetitive peak off-state voltage $IR = 100\mu\text{A}$	V_{DRM}	1200	V
Maximum repetitive reverse voltage $IR = 100\mu\text{A}$	V_{RRM}	1200	
Operating junction and storage temperature	T_j, T_{stg}	-40... +125	$^\circ\text{C}$

Thermal and Isolation Characteristics (per SCR)

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	1.0	K/W
Thermal resistance, junction to ambient	R_{thJA}	40	
Isolation voltage, RMS (measured between terminals and case)	V_{iso}	2500	V

Electrical Characteristics (per SCR), at $T_j = 25^\circ\text{C}$, unless otherwise specified

Symbol	Test Conditions	Value			Unit
		Min.	Typ.	Max.	
I_{GT}	Anode supply = 6V	-	60	-	mA
V_{GT}		-	1.3	-	V
V_{GD}	$T_j = 125^\circ\text{C}$	-	0.25	-	
I_{GD}		-	2.0	-	mA
I_H	$T_j = 125^\circ\text{C}$, Anode supply = 6V	-	125	-	
I_L		-	180	-	
dV/dt	$T_j = 125^\circ\text{C}$	-	200	-	$\text{V}/\mu\text{s}$
V_{TM}	$I_F = 30\text{A}$	-	1.3	-	V
V_{TO}	$T_j = 125^\circ\text{C}$	-	1.03	-	
R_t		-	10.5	-	$\text{m}\Omega$
t_q		-	100	-	μs

Package Outline Drawing

