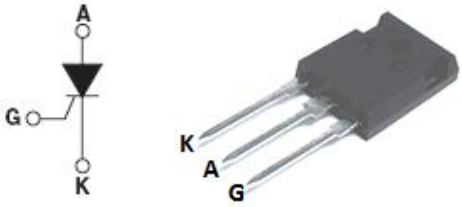
PRELIMINARY DATASHEET

Silicon Controlled Rectifier, 1200V/ 20A in TO247-3L Package

FEATURES

- High voltage & high current
- Low on-state voltage
- Suitable for over voltage control, motor control circuit and heating control system
- Pb-free finished; **RoHS compliant**



MAXIMUM RATINGS

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

Thermal Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	0.8	K/W
Thermal resistance, junction to ambient	R_{thJA}	40	

Electrical Characteristics, at T_j = 25°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°C	-	0.25	-	
I_{GD}		-	2.0	-	mA
I_H	T_j= 125°C, Anode supply = 6V	-	125	-	
I_L		-	180	-	
dV/dt	T_j= 125°C	-	200	-	V/µs
V_{TM}	I_F= 30A	-	1.3	-	V
V_{TO}	T_j= 125°C	-	1.03	-	
R_t		-	10.5	-	mΩ
t_q		-	100	-	µs

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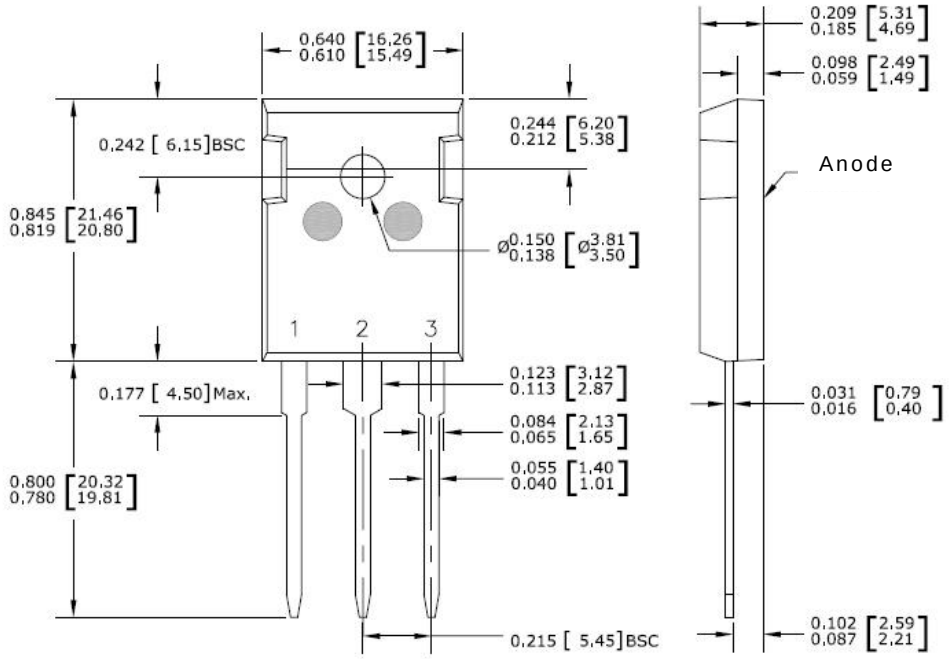
Package Outline Drawing



CAUTION: These devices are ESD sensitive. Use proper handling procedure.

Disclaimer

These specifications may not be considered as a guarantee of components characteristics. Components have to be tested depending on intended application as adjustments may be necessary. The use of **iQXPRZ Power Inc.** components in life support appliances and systems are subject to written approval of **iQXPRZ Power Inc.**

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