PRELIMINARY DATASHEET

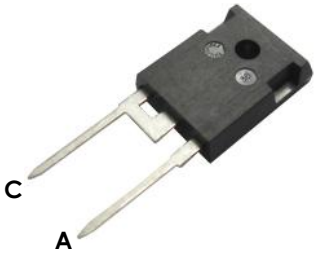
1200V 15A Silicon Carbide Schottky Diode,
In TO247 B1 version

APPLICATIONS

- Switch mode power supplies (SMPS)
- Power factor correction (PFC)
- Motor drives
- High speed rectifiers
- Uninterruptible power supplies (UPS)
- Induction heating
- Solar inverter

FEATURES

- 175 °C maximum junction temperature
- Extremely fast switching independent with temperature
- Positive temperature coefficient for safe operation and ease of parallelng
- No reverse recovery or forward recovery
- Pb-free finished; **RoHS compliant**



MAXIMUM RATINGS

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	1200	V
DC forward current T_C = 130 °C	$I_{F(AV)}$	15	A
Surge non-repetitive forward current, half sine wave T_C = 25 °C, t_p = 8.3ms	I_{FSM}	71	
Operating junction and storage temperature range	T_j, T_{stg}	-55 to 175	°C

Thermal Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	1.1	°C/W

Electrical Characteristics, at T_j = 25°C, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current V_R = 1200V, T_j=25 °C V_R = 1200V, T_j = 175°C	I_R	- -	- -	250 350	µA
Forward voltage drop I_F = 15A, T_j = 25 °C I_F = 15A, T_j = 175 °C	V_F	- -	1.7 2.8	2.0 -	V
Dynamic Characteristics					
Total capacitive charge V_R=600V, I_F=15A, T_j=25°C V_R=600V, I_F=15A, T_j=150°C	Q_C	- -	26.6 27.4	- -	nC

Team Pacific Building, Electronics Avenue
FTI Complex, Special Economic Zone
Taguig City, Philippines

Website: www.iqxprzpower.com
Telefax +632 837 1538

Figure 1 – Forward voltage drop vs forward current

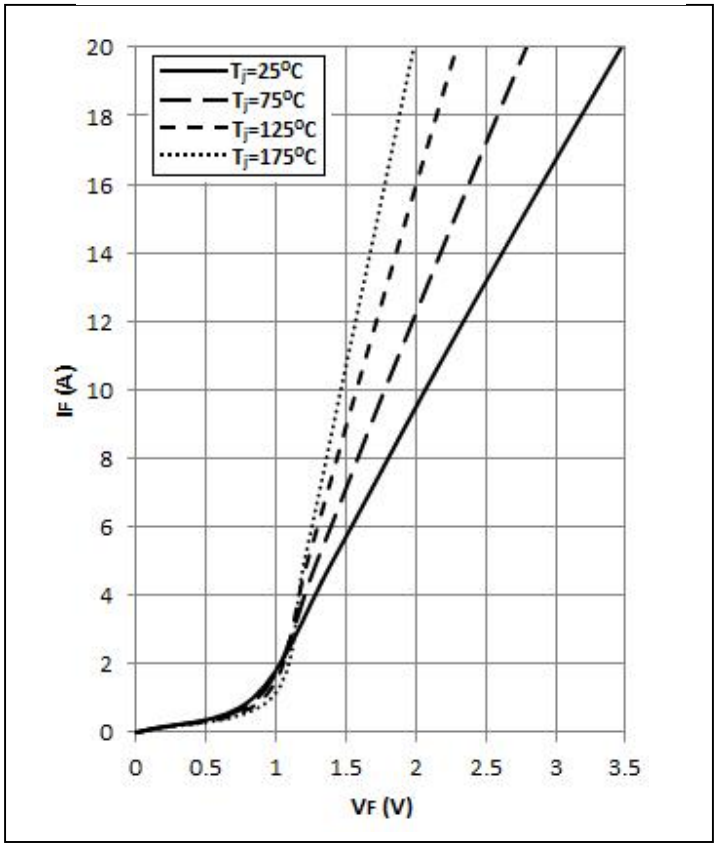
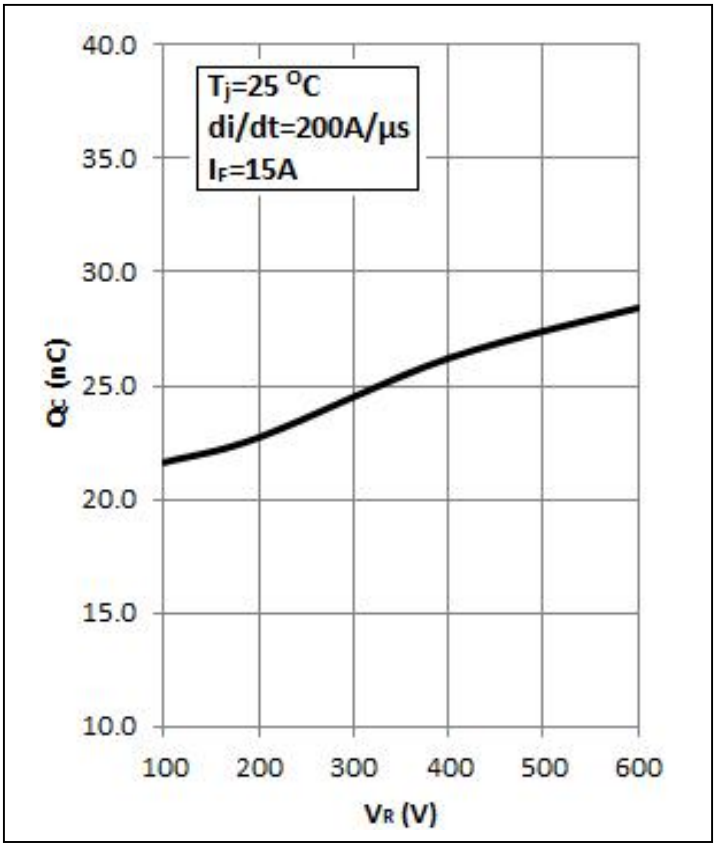
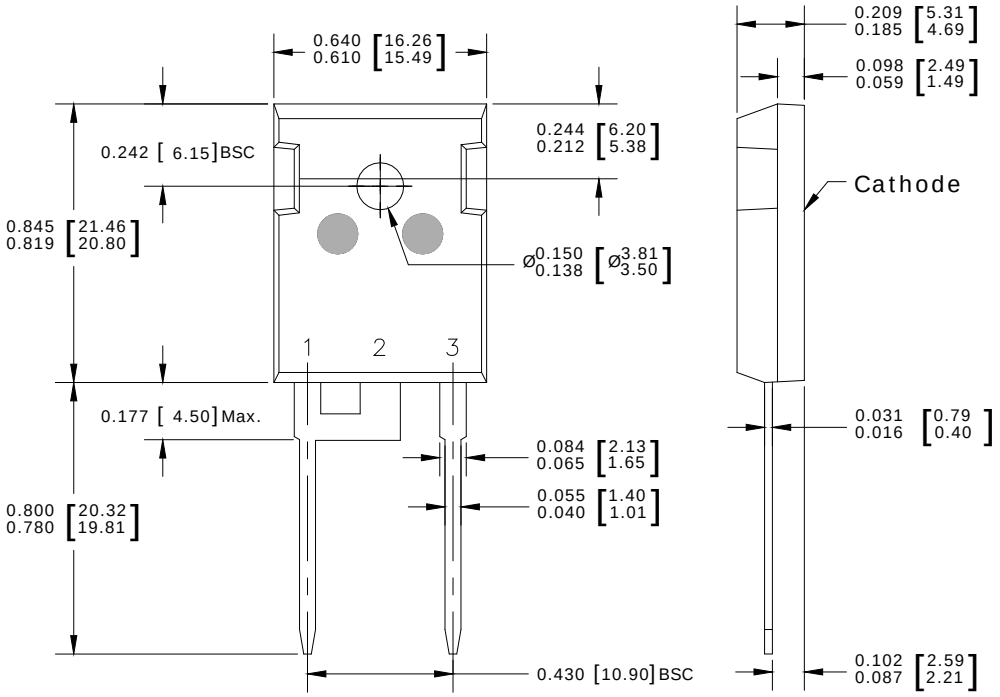


Figure 2 – Recovery charge vs Reverse voltage



Website: www.iqxprzpower.com
Telefax +632 837 1538

Package Outline Drawing



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.**

Team Pacific Building, Electronics Avenue
FTI Complex, Special Economic Zone
Taguig City, Philippines

Website: www.iqxprzpower.com
Telefax +632 837 1538