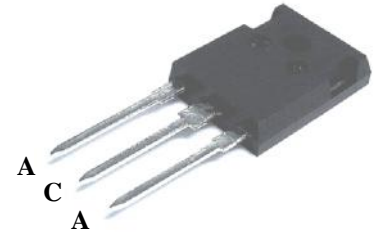
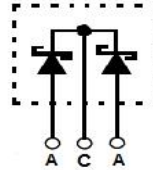


PRELIMINARY DATASHEET
Parallel (Common-cathode) 2X16A, 600V Silicon Carbide Schottky Diode, in TO247-3L Package
FEATURES

- Silicon Carbide material
- High surge current capability
- No reverse recovery charge
- Temperature independent switching behavior
- Pb-free; RoHS compliant

APPLICATIONS

- Switch mode power supplies (SMPS)
- Power factor correction (PFC)
- Motor drives


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

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	600	V
Continuous forward current $T_c < 140^\circ\text{C}$	I_F	16	A
Surge non-repetitive forward current, half sine wave $T_c = 25^\circ\text{C}$, $t_p = 10\text{ms}$	I_{FSM}	118	
Operating junction and storage temperature	T_j, T_{stg}	-55 ... +175	$^\circ\text{C}$

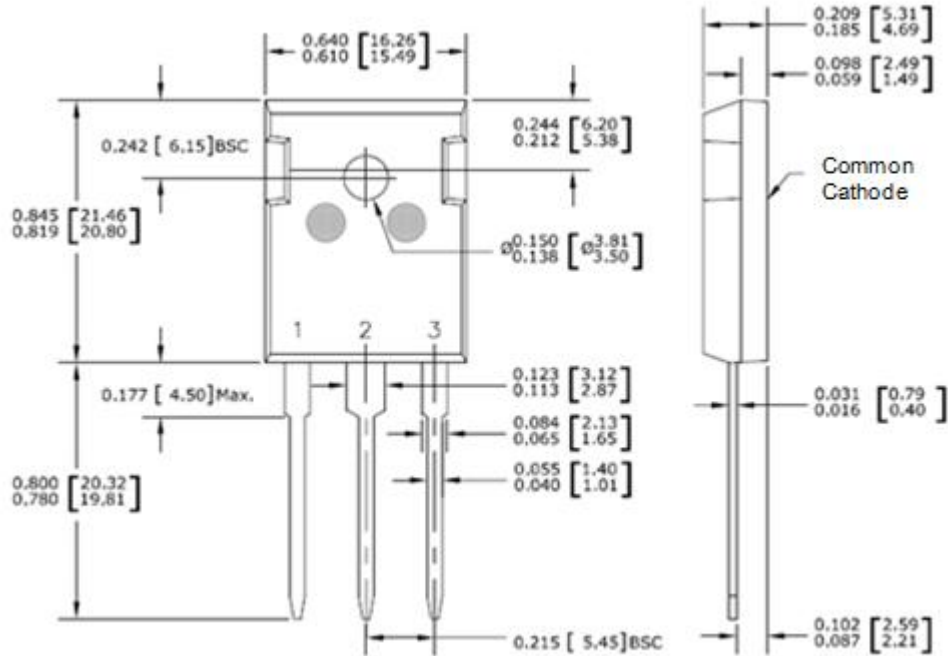
Thermal Characteristics (per Diode)

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	1.0	$^\circ\text{C}/\text{W}$
Thermal resistance, junction to ambient	R_{thJA}	62	

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

Parameter	Conditions	Symbol	Value			Unit
			Min.	Typ.	Max.	
Static Characteristics						
Cathode-anode Breakdown voltage	$I_R = 0.2\text{mA}$	V_{BR}	600	-	-	V
Reverse leakage current	$V_R = 600\text{V}$	I_R	-	-	200	μA
Forward voltage drop	$I_F = 16\text{A}$	V_F	-	1.5	1.7	V
Dynamic Characteristics						
Total capacitive charge	$V_R = 400\text{V}$, $di/dt = 200\text{A}/\mu\text{s}$, $I_F \leq I_{F,max}$, $T_j = 150^\circ\text{C}$.	Q_C	-	38	-	nC

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.**