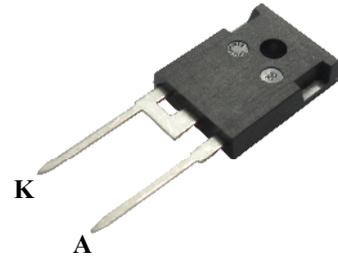
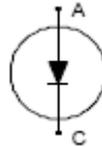


PRELIMINARY DATASHEET
Fast Recovery 50A 600V Diode, in TO247 B1 version

- Fast recovery
- Soft switching
- Low forward voltage
- Easy paralleling
- Pb-free lead finish; RoHS compliant


MAXIMUM RATINGS, 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 $T_c = 85^\circ\text{C}$	I_F	50	A
Maximum repetitive forward current $T_c = 25^\circ\text{C}$, t_p limited by T_{jmax} , $D = 0.5$	I_{FRM}	100	
Soldering temperature Wave soldering, 1.6 mm (0.063 in.) from case for 10s	T_s	260	$^\circ\text{C}$
Operating junction and storage temperature	T_j, T_{stg}	-55... +150	

Thermal Resistance

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	0.92	K/W

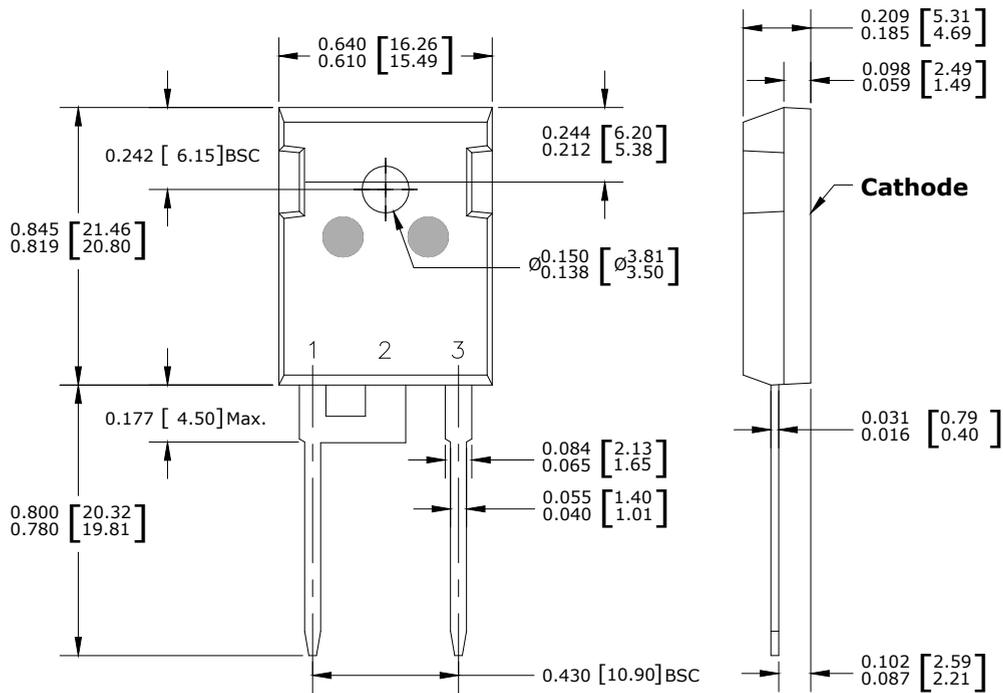
Electrical Characteristics, at $T_j = 25^\circ\text{C}$, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Static Characteristics					
Reverse leakage current $V_R = 600\text{V}$	I_R	-	-	27	μA
Forward voltage drop $I_F = 50\text{A}, T_j = 25^\circ\text{C}$ $I_F = 50\text{A}, T_j = 150^\circ\text{C}$	V_F	-	1.55 1.45	1.95 -	V

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

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Dynamic Characteristics					
Peak reverse current $V_R = 300\text{V}, I_F = 50\text{A}, di_F/dt = 2800\text{A}/\mu\text{s}, T_j = 25^\circ\text{C}$	I_{rrm}	-	78	-	A
Reverse recovery charge $V_R = 300\text{V}, I_F = 50\text{A}, di_F/dt = 2800\text{A}/\mu\text{s}, T_j = 25^\circ\text{C}$	Q_{rr}	-	2.25	-	μC

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.**