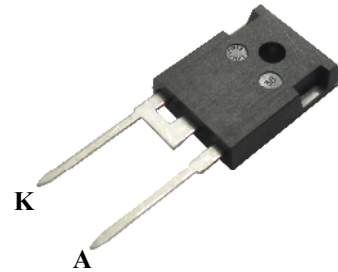
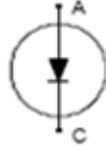


**PRELIMINARY DATASHEET**
**Fast Recovery 50A, 1200V Diodes,  
in TO247 B1 version**

- Ultrafast recovery time
- Soft recovery characteristics
- Low recovery loss
- Low forward voltage
- High surge current capability
- Low leakage current


**MAXIMUM RATINGS**, at  $T_J = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	$V_{RRM}$	1200	V
Continuous forward current $T_C = 95^\circ\text{C}$	$I_F$	50	A
Surge non-repetitive forward current $T_J = 45^\circ\text{C}$ , $t_p = 10$ ms, 50Hz, Sine	$I_{FSM}$	100	
Operating junction and storage temperature	$T_J, T_{stg}$	-40... +150	$^\circ\text{C}$

**Thermal Characteristics**

Parameter	Symbol	Max. Value	Units
<b>Characteristics</b>			
Thermal resistance, junction to case	$R_{thJC}$	0.65	$^\circ\text{C}/\text{W}$

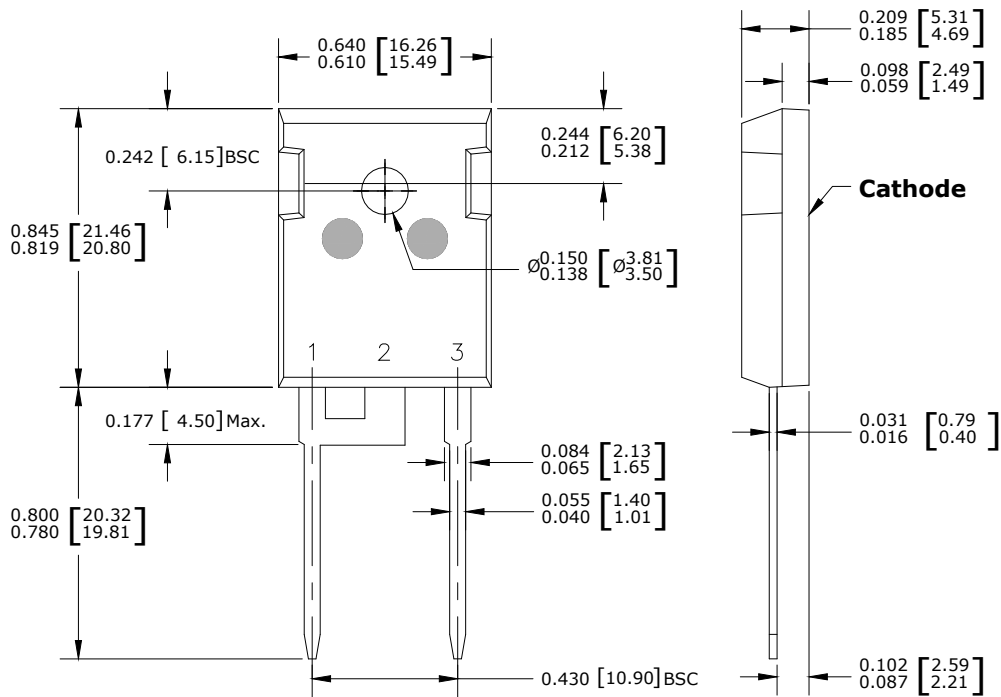
**Electrical Characteristics**, at  $T_J = 25^\circ\text{C}$ , unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
<b>Static Characteristics</b>					
Reverse leakage current $V_R = 1200$ V	$I_R$	-	-	100	$\mu\text{A}$
Forward voltage drop $I_F = 50$ A	$V_F$	-	1.8	-	V

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

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
<b>Dynamic Characteristics</b>					
Reverse recovery time $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ , $T_J = 125^\circ\text{C}$	$t_{rr}$	-	250 360	-	ns
Maximum reverse recovery current $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ , $T_J = 125^\circ\text{C}$	$I_{rrm}$	-	45 55	-	A
Reverse recovery charge $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ $\mu\text{s}$ , $T_J = 125^\circ\text{C}$	$Q_{rr}$	-	6.5 12.7	-	$\mu\text{C}$

**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.**