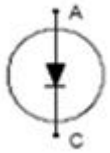
Fast Recovery 50A 600V Diode, in TO247 B1 version

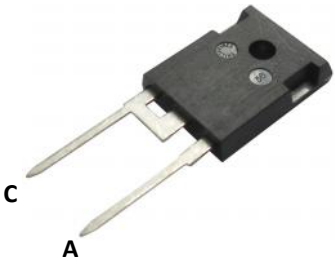


APPLICATIONS

- Switch mode power supplies (SMPS) rectifiers
- Resonant applications
- Industrial drives

FEATURES

- Fast recovery
- Soft switching
- Low reverse recovery charge
- Low forward voltage drop
- Low leakage current
- Easy paralleling
- Pb-free finished; **RoHS compliant**



MAXIMUM RATINGS

Parameter	Symbol	Value	Units
Repetitive peak reverse voltage	V_{RRM}	600	V
Continuous forward current T_C= 85°C	I_F	50	A
Maximum repetitive forward current T_C= 25°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	°C
Operating junction and storage temperature	T_j, T_{stg}	-55… +150	

Thermal Characteristics

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	0.92	K/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 = 600V	I_R	-	-	27	µA
Forward voltage drop I_F = 50A, T_j = 25°C I_F = 50A, T_j = 150°C	V_F	- -	1.55 1.45	1.95 -	V

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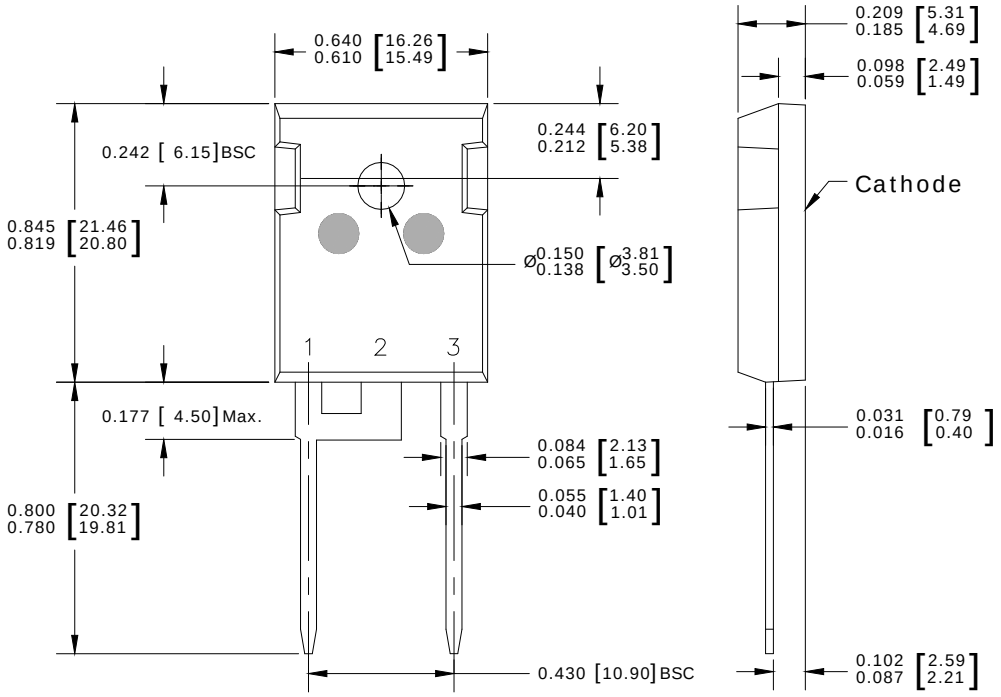
Electrical Characteristics, at T_j = 25°C, unless otherwise specified

Parameter	Symbol	Value			Unit
		Min.	Typ.	Max.	
Dynamic Characteristics					
Peak reverse current V_R = 300V, I_F = 50A, di_F/dt = 2800A/µs, T_j = 25°C	I_{rrm}	-	78	-	A
Reverse recovery charge V_R = 300V, I_F = 50A, di_F/dt = 2800A/µs, T_j = 25°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.**

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