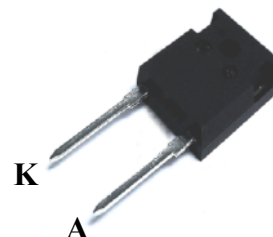


PRELIMINARY DATASHEET
**Fast Recovery 50A, 1200V Diodes,
in TO247 Package**

- 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
Characteristics			
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.	
Static Characteristics					
Reverse leakage current $V_R = 1200$ V	I_R	-	-	100	μA
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.	
Dynamic Characteristics					
Reverse recovery time $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	t_{rr}	-	250 360	-	ns
Maximum reverse recovery current $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	I_{rrm}	-	45 55	-	A
Reverse recovery charge $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs $V_R = 600$ V, $I_F = 50$ A, $di_F/dt = -1000$ A/ μs , $T_J = 125^\circ\text{C}$	Q_{rr}	-	6.5 12.7	-	μC

