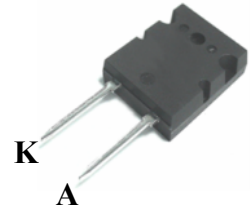
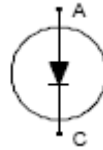


PRELIMINARY DATASHEET
Fast Recovery 600V Diode, in TO264 Package

- Fast recovery
- Soft switching
- Low reverse recovery charge
- 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}	1200	V
Continuous forward current	I_F	32	A
$T_C = 25^\circ\text{C}$		15	
$T_C = 90^\circ\text{C}$			
Diode pulsed current, t_p limited by T_{jmax}	I_{Fpulse}	50	
Maximum repetitive forward current	I_{FRM}	30	
$T_C = 25^\circ\text{C}$, t_p limited by T_{jmax} , $D = 0.5$			
Operating junction and storage temperature	T_j, T_{stg}	-55... +175	$^\circ\text{C}$

Thermal Resistance

Parameter	Symbol	Max. Value	Units
Characteristics			
Thermal resistance, junction to case	R_{thJC}	1.5	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 $V_R = 1200\text{V}$	I_R	-	-	27	μA
Forward voltage drop $I_F = 15\text{A}$ $I_F = 15\text{A}, T_j = 150^\circ\text{C}$	V_F	-	2.0 1.75	2.5 -	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 $V_R = 600\text{V}, I_F = 15\text{A}, di_F/dt = 600\text{A}/\mu\text{s}$ $T_j = 25^\circ\text{C}$ $T_j = 125^\circ\text{C}$	t_{rr}	- -	65 200	- -	ns
Peak reverse current $V_R = 600\text{V}, I_F = 15\text{A}, di_F/dt = 600\text{A}/\mu\text{s}$ $T_j = 25^\circ\text{C}$ $T_j = 125^\circ\text{C}$	I_{rrm}	- -	15 23	- -	A
Reverse recovery charge $V_R = 600\text{V}, I_F = 15\text{A}, di_F/dt = 600\text{A}/\mu\text{s}$ $T_j = 25^\circ\text{C}$ $T_j = 125^\circ\text{C}$	Q_{rr}	- -	0.5 2.0	- -	μC

Package Outline Drawing

