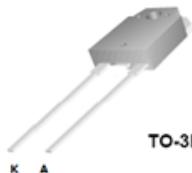


Fast Soft Recovery Diode 30A 1200V trr ~ 36 ns

Features

Ultrafast Soft Recovery
175°C operating junction temperature
Low Forward Voltage
Low Leakage Current



Applications

Freewheeling , Clamp
Snubber Diode
Switch Mode Power Supply
Motor Control
Inverters , Converters



Absolute Maximum Ratings $T_c = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Values	Units
V_R	Cathode – Anode voltage	1200	V
$I_{F(AV)}$	Average Rectified Forward Current	30	A
I_{FSM}	Nonrepetitive Peak Surge Current@8.3ms	300	A
T_J	Operating Temperature Range	175	$^\circ\text{C}$
T_{STG}	Storage Temperature	-55 to +175	$^\circ\text{C}$

Thermal characteristics

Symbol	Parameter	Values	Units
$R_{\theta JA}$	Thermal Resistance, Junction -to-ambient	40	$^\circ\text{C}/\text{W}$
$R_{\theta JC}$	Thermal Resistance, Junction-to-Case	0.6	$^\circ\text{C}/\text{W}$

Electrical Characteristics $T_J = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V_{BR}	Breakdown Voltage	$I_R = 100 \mu\text{A}$	1200	--	--	V
V_F	Forward voltage	$I_F = 30 \text{ A}, T_J = 25^\circ\text{C}$	--	2.0	2.4	V
		$I_F = 30 \text{ A}, T_J = 125^\circ\text{C}$	--	1.70	2.2	V
I_R	Reverse Leakage Current	$V_R = V_R \text{ rated}$	--	--	50	μA
		$V_R = V_R \text{ rated}, T_J = 150^\circ\text{C}$	--	--	250	μA
trr	Reverse recovery time	$I_F = 0.5\text{A}, I_R = 1\text{A}, I_{RR} = 0.25\text{A}$	--	55	70	ns
		$I_F = 1\text{A}, V_R = 30\text{V}, dI/dt = -200\text{A/us}$	--	36	--	ns