

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 °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	°C
T _{STG}	Storage Temperature	-55 to +175	°C

Thermal characteristics

Symbol	Parameter	Values	Units
R _{θja}	Thermal Resistance, Junction -to-ambient	40	°C/W
R _{θJC}	Thermal Resistance, Junction-to-Case	0.6	°C/W

Electrical Characteristics T_J = 25 °C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V _{BR}	Breakdown Voltage	I _R = 100 uA	1200	--	--	V
V _F	Forward voltage	I _F = 30 A, T _J = 25 °C	--	2.0	2.4	V
		I _F = 30 A, T _J = 125 °C	--	1.70	2.2	V
I _R	Reverse Leakage Current	V _R = V _R rated	--	--	50	uA
		V _R = V _R rated, T _J = 150 °C	--	--	250	uA
trr	Reverse recovery time	I _F = 0.5A, I _R = 1A, I _{RR} = 0.25A	--	55	70	ns
		I _F = 1A, V _R = 30V, di/dt = -200A/us	--	36	--	ns