

Absolute Maximum Ratings of Freewheeling Diode

V _{RRM}	Repetitive Peak Reverse Voltage	1200	V
I _F	Diode Continuous Forward Current, T _C = 25°C	300	A
	Diode Continuous Forward Current, T _C = 80°C	150	
I _{FM}	Pulse Diode Current	300	A

Electrical and Switching Characteristics of Freewheeling Diode

Parameter		Typ.	Max.	Unit	Test Conditions
V _F	Forward Voltage	2.20	2.70	V	T _J = 25°C
		2.40			T _J = 125°C
I _{rr}	Peak Reverse Recovery Current	90		A	T _J = 25°C
		110			T _J = 125°C
Q _{rr}	Reverse Recovery Charge	13.3		μC	T _J = 25°C
		15.2			T _J = 125°C
E _{rec}	Reverse Recovery Energy	2.0		mJ	T _J = 25°C
		6.1			T _J = 125°C

I_F = 150A,
 V_{GE} = 0V

 I_F = 150A,
 di/dt = 1000A/μs,
 V_{rr} = 600V,
 V_{GE} = -15V

NTC-Thermistor Characteristic Values

Parameter		Typ.	Max.	Unit
R ₂₅	T _C = 25°C	5		kΩ
ΔR/R	T _C = 100°C, R ₁₀₀ = 481Ω		± 5	%
P ₂₅	T _C = 25°C	50		mW
B _{25/50}	R ₂ = R ₂₅ exp[B _{25/50} (1/T ₂ - 1/(298.15K))]	3380		K
B _{25/80}	R ₂ = R ₂₅ exp[B _{25/80} (1/T ₂ - 1/(298.15K))]	3440		K

Module Characteristics

Parameter		Min.	Typ.	Max.	Unit
V _{iso}	Isolation Voltage (All Terminals Shorted), f = 50Hz, 1minute			2500	V
R _{θJC}	Junction-to-Case (IGBT)		0.147		°C/W
R _{θJC}	Junction-to-Case (Diode)		0.290		°C/W
R _{θCS}	Case-To-Sink (Conductive Grease Applied)		0.1		°C/W
M	Power Terminals Screw: M6	3.0		5.0	N·m
M	Mounting Screw: M6	4.0		6.0	N·m
G	Weight		330		g