

General Description

TRinno IGBT power module provides low conduction and switching losses as well as short circuit ruggedness. It is designed for applications such as Motor Driver, IH , Rectifier and Welder.

Features

- 1200V Field Stop Trench IGBT Technology
- Fast & Soft Recovery Diodes
- Positive Temperature Coefficient
- Short Circuit Withstanding Time : 10 s



Applications

Motor driver, IH(Induction heating), Rectifier, Welder

Absolute Maximum Ratings

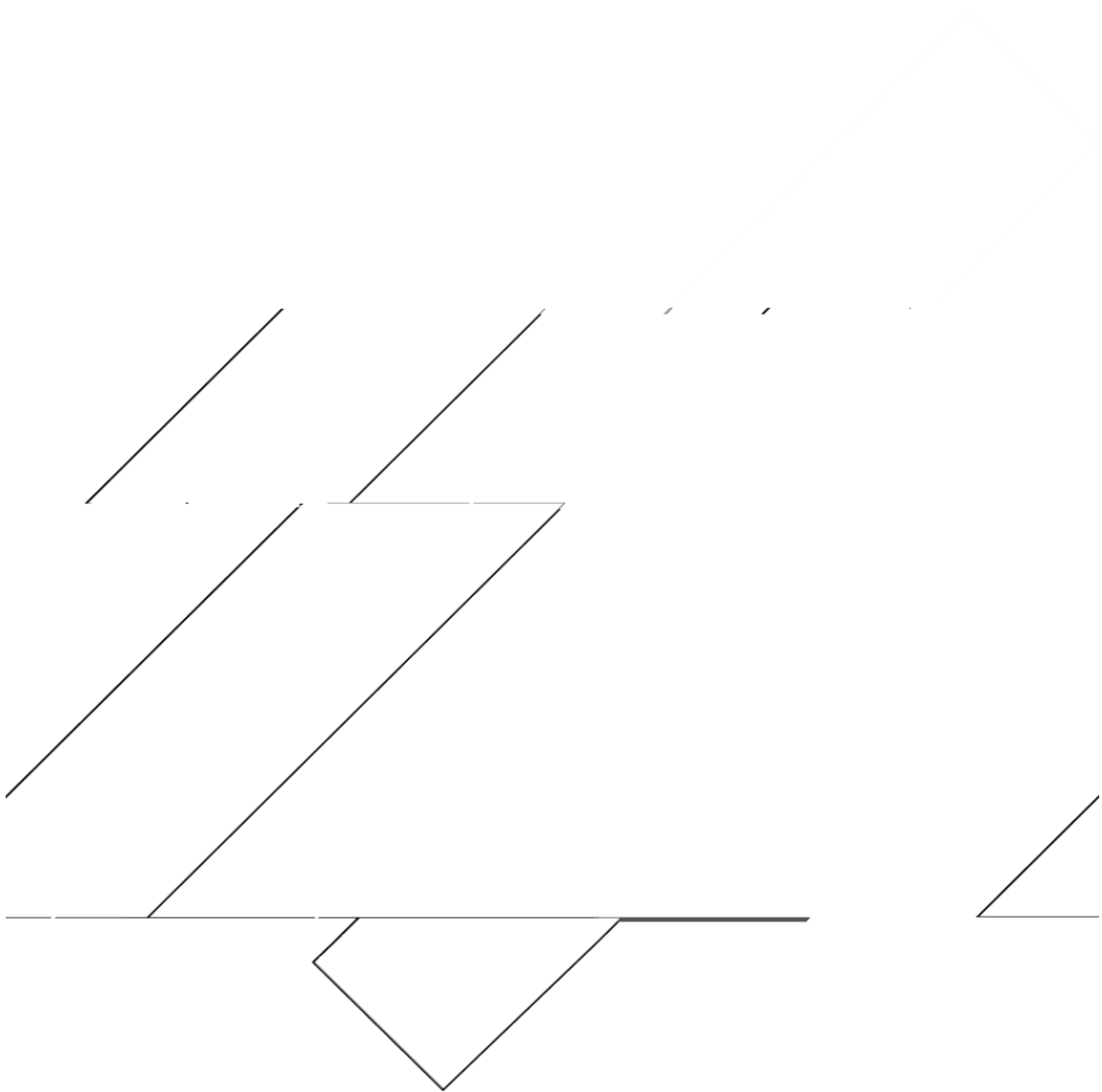
Parameter	Symbol	Value	Unit	
Collector-Emitter Voltage	V_{CES}	1200	V	
Gate-Emitter Voltage	V_{GES}	± 20	V	
Continuous Collector Current	I_C	$T_C = 25$	150	A
		$T_C = 100$	75	A
Pulsed Collector Current (Note 1)	I_{CM}	150	A	
Diode Continuous Forward Current	I_F	75	A	
Power Dissipation	P_D	$T_C = 25$	TBD	W
		$T_C = 100$	TBD	W
Operating Junction Temperature	T_{vj}	-40 ~ 150		
Storage Temperature Range	T_{STG}	-40 ~ 150		

Notes :

(1) Repetitive rating : Pulse width limited by maximum junction temperature

Thermal Characteristics

Parameter	Symbol	Value	Unit
Maximum Thermal resistance, Junction-to-Case (Per IGBT)		TBD	K/W
Maximum Thermal resistance, Junction-to-Case (Per DIODE)		TBD	K/W



Electrical Characteristics of the DIODE $T_{vj}=25^{\circ}\text{C}$, unless otherwise noted

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit	
Diode Forward Voltage	V_{FM}	$I_F = 75\text{A}$	$T_{vj} = 25$	--	2.3	2.8	V
			$T_{vj} = 125$	--	TBD	TBD	
Reverse Recovery Current	I_{rr}	$V_{CC} = 600\text{V}, I_F = 75\text{A}$ $R_G = 10$, $V_{GE} = 15\text{V}$ Inductive Load	$T_{vj} = 25$	--	TBD	--	A
			$T_{vj} = 125$	--	TBD	--	
Reverse Recovery Charge	Q_{rr}	$V_{CC} = 600\text{V}, I_F = 75\text{A}$ $R_G = 10$, $V_{GE} = 15\text{V}$ Inductive Load	$T_{vj} = 25$	--	2.9	--	C
			$T_{vj} = 125$	--	TBD	--	
Reverse Recovery Time	t_{rr}	$V_{CC} = 600\text{V}, I_F = 75\text{A}$ $R_G = 10$, $V_{GE} = 15\text{V}$ Inductive Load	$T_{vj} = 25$	--	TBD	--	ns
			$T_{vj} = 125$	--	TBD	--	

Characteristics of the Module

Parameter	Symbol	Test condition	Min.	Typ.	Max.	Unit
Isolation Voltage	V_{ISO}	RMS, $f=50\text{Hz}$, $t=1$ minutes	--	2.5	--	kV
Terminal mounting torque (M5)	--		2.5	--	5.0	N.m
Weight	--		--	155	--	g

