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($T_{vj} = 25^{\circ}\text{C}$ unless otherwise specified)

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V_{CES}	Collector-Emitter Voltage	Gate-emitter = 0 V	1200	V
V_{GES}	Gate-Emitter Voltage	Collector-emitter = 0 V	± 20	V
I_C	Continuous Collector Current	$T_C = 90^{\circ}\text{C}$	± 800	A
I_{PULSE}	Repetitive Pulsed Collector Current	$T_C = 25^{\circ}\text{C}$, $t_p = 1$ ms	± 1600	A
T_{vjop}	Operating Junction Temperature		-40~175	$^{\circ}\text{C}$
T_{SCWT}	Short Circuit Withstand Time, Non Repetitive	$V_{GE} \leq 15$ V, $V_{DC+} \leq 800$ V	8	μs

V_{ISO}	Isolation Voltage	RMS, $f = 60$ HZ, pins to base plate	3.4	kV
T_{STG}	Storage Temperature		-40~125	$^{\circ}\text{C}$
M_T	Mounting torque to main terminals (Note 1)	M6 screw	6.0	N·m
M_H	Mounting torque to heat sink (Note 1)	M5 screw		

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

1. Recommendable value: 3.0 ~ 6.0 N·m

R_{thJCQ}	Junction to Case Thermal Resistance (Note 2)	Per IGBT	-	-	0.0498	$^{\circ}\text{C}/\text{W}$
R_{thJCD}		Per diode	-	-	0.0889	
R_{thCHQ}	Case to Heat-Sink Thermal Resistance (Note 2)	Per IGBT, 1 W/(m·K) thermal grease	-	0.0282	-	
R_{thCHD}		Per diode, 1 W/(m·K) thermal grease	-	0.0342	-	

2. Data from characterization.

R_{25}	Nominal Resistance	$T_{NTC} = 25^{\circ}\text{C}$	-	5	-	$\text{k}\Omega$
R_{100}		$T_{NTC} = 100^{\circ}\text{C}$	-	493.3	-	Ω
ΔR	Deviation on R_{100}	$T_{NTC} = 100^{\circ}\text{C}$				

(T_{vj} = 25°C unless otherwise specified)

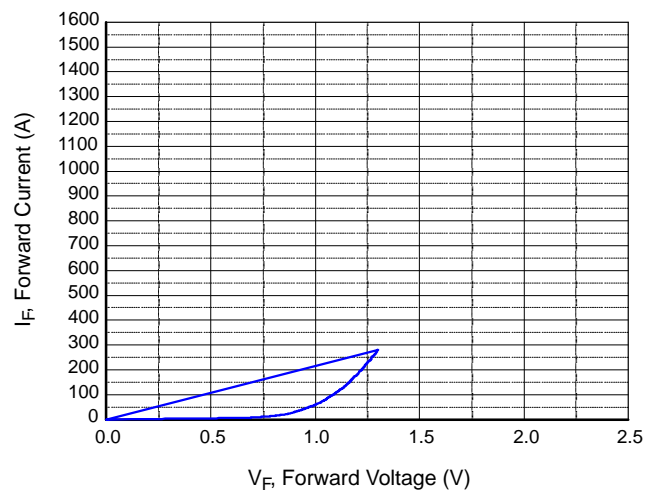
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$V_{CE(SAT)}$ (Pin 8-9)	Collector-Emitter Saturation Voltage	$V_{GE} = 15\text{ V}, I_C = 800\text{ A}$	$T_{vj} = 25^\circ\text{C}$	-	1.65	2.05	V
$V_{CE(SAT)}$ (Chip) (Note 3)			$T_{vj} = 25^\circ\text{C}$	-	1.44	1.85	
			$T_{vj} = 125^\circ\text{C}$	-	1.63	-	
			$T_{vj} = 175^\circ\text{C}$	-	1.75	-	
$V_{GE(TH)}$							



(T_{vj} = 25°C unless otherwise specified) (continued)





(continued)

E_{rec} , Reverse Recovery Energy Loss (mJ)

t_s , Switching Time (ns)

IGBT // Diode Capacitance (nF)

I_C , Collector Current (A)

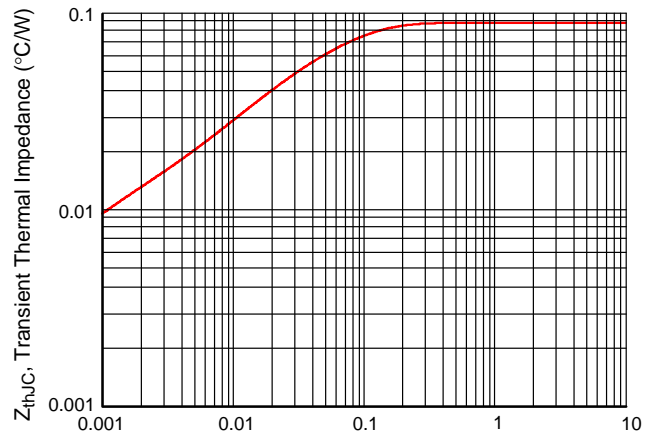
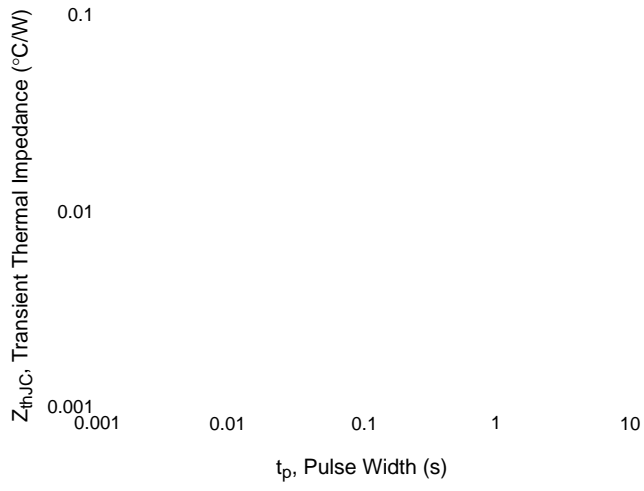
V_{GE} , Gate-Emitter Voltage (V)

V_{CE} , Collector-Emitter Voltage (V)

Q_g , Gate Charge (μC)



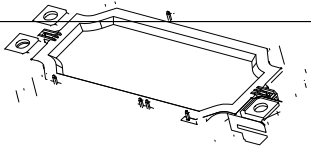
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I_c , Collector Current (A)

Thermistor Resistance (k Ω)

Thermistor Temperature (°C)



PIM11, 152.00x62.15x17.00
CASE 180HT
ISSUE E

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