

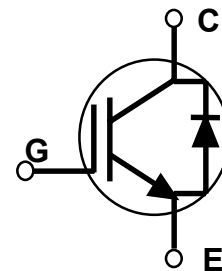
FEATURES

- * High Speed Switching
- * Low Saturation Voltage
: $V_{CE(sat)} = 2.7\text{ V}$ (at $I_C=60\text{A}$)
- * High Input Impedance

APPLICATIONS

- * Home Appliance
 - Induction Heater
 - IH JAR
 - Micro Wave Oven

TO-264



ABSOLUTE MAXIMUM RATINGS

Symbol	Characteristics		Rating	Unit
V _{CES}	Collector-Emitter Voltage		900	V
V _{GE}	Gate - Emitter Voltage		± 25	V
I _C	Continuous Collector Current	T _C = 25℃	60	A
		T _C = 100℃	42	
I _{CM (1)}	Pulsed Collector Current		120	A
P _D	Maximum Power Dissipation	T _C = 25℃	200	W
		T _C = 100℃	120	
T _j	Operating Junction Temperature		-55 ~ 150	℃
T _{stg}	Storage Temperature Range			
T _L	Soldering maximum lead temperature (1/8" from case for 10 seconds)		300	℃

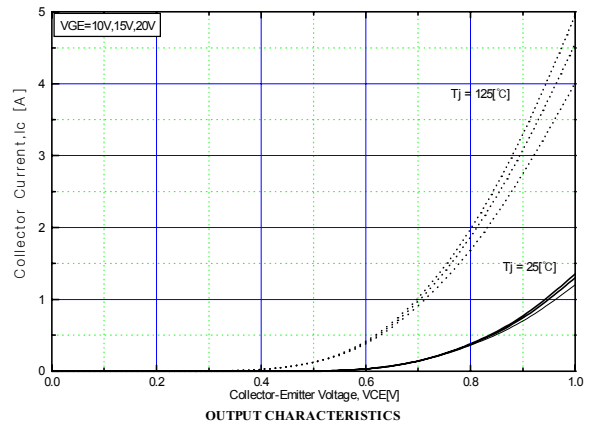
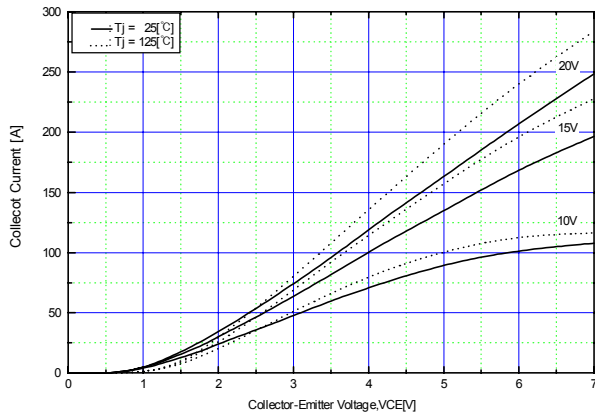
Notes: (1) Repetitive rating : Pulse with limited by max. junction temperature

ELECTRICAL CHARACTERISTICS (T_C=25°C)

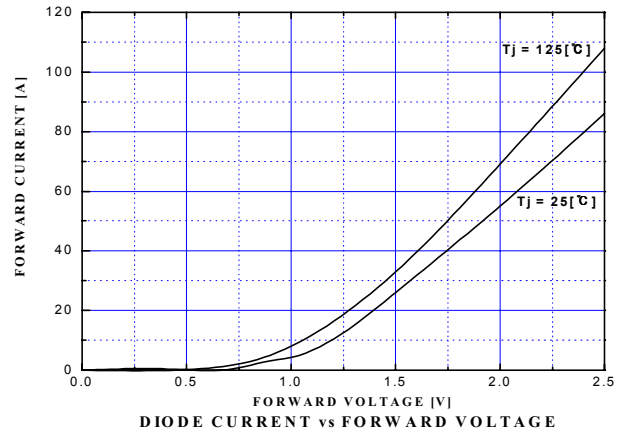
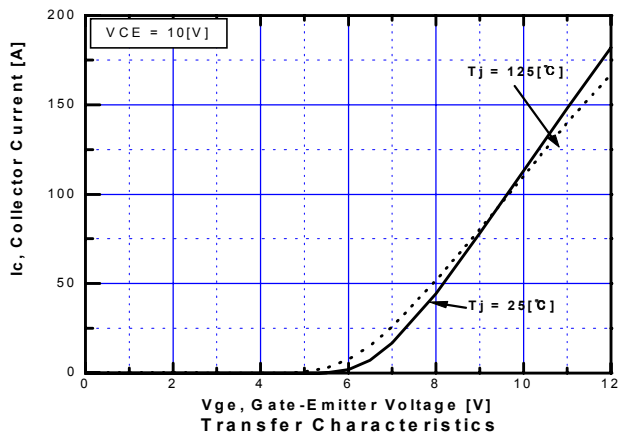
Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
BV _{CES}	C - E Breakdown Voltage	V _{GE} = 0V , I _C = 1mA	900	-	-	V
V _{GE(th)}	G - E threshold voltage	I _C = 60mA , V _{CE} = 10V	4.5	-	7.5	V
I _{CES}	Collector cutoff Current	V _{CE} = V _{CES} , V _{GE} = 0V	-	-	1.0	mA
I _{GES}	G - E leakage Current	V _{GE} = V _{GES} , V _{CE} = 0V	-	-	500	nA
V _{CE(sat)}	Collector to Emitter saturation voltage	V _{GE} = 15V, I _C = 60A	-	2.7	3.5	V
Cies	Input capacitance	V _{GE} = 0V , f = 1MHz V _{CE} = 10V	-	4500	-	pF
Coes	Output capacitance		-	800	-	pF
Cres	Reverse transfer capacitance		-	200	-	pF
ton	Turn on time	V _{CC} = 600V , I _C = 60A V _{GE} = 15V R _G = 51Ω Resistive load	-	350	800	ns
tr	Rise time		-	250	600	ns
toff	Turn off time		-	500	1000	ns
tf	Fall time		-	250	400	ns
V _{EC}	Emitter-Collector Voltage	I _E = 15A	-	1.5	2.0	V
trr	Reverse recovery time	I _E = 15A, di/dt = -100A/μs	-	0.7	2.0	μs

THERMAL RESISTANCE

Symbol	Characteristics	Min	Typ	Max	Units
R _{θJC}	Junction-to-Case : IGBT	-	-	0.625	°C/W
R _{θJC}	Junction-to-Case : Diode	-	-	4.0	°C/W



OUTPUT CHARACTERISTICS



DIODE CURRENT vs FORWARD VOLTAGE

