

FEATURES

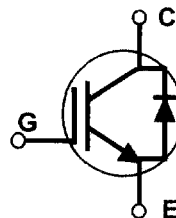
- * High Speed Switching
- * Low Saturation Voltage
: $V_{CE(sat)} = 2.1 \text{ V}$ (at $I_C=60\text{A}$)
- * High Input Impedance
- * Built in Fast Recovery Diode

TO-264



APPLICATIONS

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



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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) Repeattive rating : Pulse with limited by max. junction temperature

ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$)

Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
BV_{CES}	C - E Breakdown Voltage	$V_{GE} = 0V, I_C = 1\text{mA}$	900	-	-	V
$V_{GE(th)}$	G - E threshold voltage	$I_C = 60\text{mA}, V_{CE} = 10V$	3.0	-	7.0	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	$V_{GE} = 15V, I_C = 60A$	-	2.1	2.5	V
C_{ies}	Input capacitance	$V_{GE} = 0V, f = 1\text{MHz}$ $V_{CE} = 10V$	-	3200	-	nF
C_{oes}	Output capacitance		-	800	-	nF
C_{res}	Reverse transfer capacitance		-	200	-	nF
t_{on}	Turn on time	$V_{CC} = 600V, I_C = 60A$ $V_{GE} = 15V$ $R_G = 51\Omega$ Resistive load	-	320	750	ns
t_r	Rise time		-	230	550	ns
t_{off}	Turn off time		-	450	900	ns
t_f	Fall time		-	250	400	ns
V_{EC}	Emitter-Collector Voltage	$I_E = 60A$	-	-	1.7	V
t_{rr}	Reverse recovery time	$I_E = 60A, di/dt = -100A/\mu s$	-	-	3.0	μs

THERMAL RESISTANCE

Symbol	Characteristics	Min	Typ	Max	Units
$R_{\theta JC}$	Junction-to-Case : IGBT	-	-	0.625	$^\circ\text{C/W}$
$R_{\theta JC}$	Junction-to-Case : Diode	-	-	2.08	$^\circ\text{C/W}$