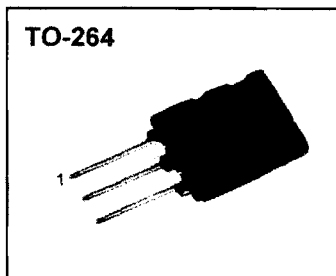


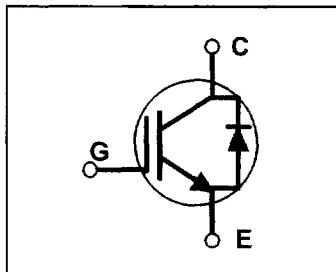
FEATURES

- * High Speed Switching
- * Low Saturation Voltage
: $V_{CE(sat)} = 3.7 \text{ V typ. (at } I_c=40\text{A)}$
- * High Input Impedance
- * Built in Fast Recovery Diode



APPLICATIONS

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



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ABSOLUTE MAXIMUM RATINGS

Symbol	Characteristics	Rating	Unit	
V_{CES}	Collector-Emmitter Voltage	1500	V	
V_{GE}	Gate - Emmitter Voltage	± 25	V	
I_C	Continuous Collector Current	$T_c = 25^\circ\text{C}$	40	A
		$T_c = 100^\circ\text{C}$	20	
$I_{CM(1)}$	Pulsed Collector Current	120	A	
P_D	Maximum Power Dissipation	$T_c = 25^\circ\text{C}$	200	W
		$T_c = 100^\circ\text{C}$	80	
T_j	Operating Junction Temperature	-55 ~ 150	$^\circ\text{C}$	
T_{stg}	Storage Temperature Range			
T_L	Soldering maximum lead temperature (1/8" from case for 10 seconds)	300	$^\circ\text{C}$	

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	I _C = 250uA , V _{GE} = 0V	1500	-	-	V
V _{GE(th)}	G - E threshold voltage	I _C = 40mA, V _{CE} = 10V	3.5	-	7.5	V
I _{CES}	Collector cutoff Current	V _{CE} = V _{CES} , V _{GE} = 0V	-	-	250	uA
I _{GES}	G - E leakage Current	V _{GE} = V _{GES} , V _{CE} = 0V	-	-	100	nA
V _{CE(sat)}	Collector to Emitter saturation voltage	V _{GE} = 15V, I _C = 40A	-	3.7	4.7	V
Cies	Input capacitance	V _{GE} = 0V , f = 1MHz	-	4000	-	pF
Coes	Output capacitance	V _{CE} = 10V	-	700	-	pF
Cres	Reverse transfer capacitance		-	600	-	pF
ton	Turn on time	V _{CC} = 600V , I _C = 40A	-	700	1100	nS
tr	Rise time	V _{GE} = 15V	-	600	1000	nS
toff	Turn off time	R _G = 51.Ω	-	500	1100	nS
tf	Fall time	Resistive load	-	180	400	nS
V _{EC}	Emitter-Collector Voltage	I _E = 15A	-	1.8	2.5	V
trr	Reverse recovery time	I _E = 15A, die/dt = -200A/uS	-	0.4	1.0	uS

THERMAL RESISTANCE

Symbol	Characteristics	Min	Typ	Max	Units
R _{θJC}	Junction-to-Case (IGBT)	-	-	0.625	°C/W
R _{θJC}	Junction-to-Case (Diode)	-	-	0.83	°C/W