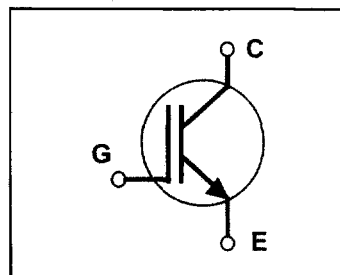
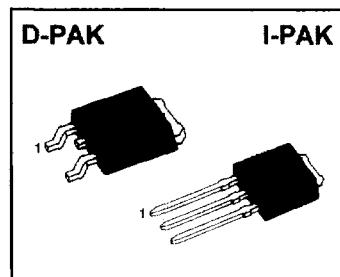


FEATURES

- * High Input Impedance
- * High Peak Current Capability (150A)
- * Easy Gate Drive

APPLICATIONS

- * Strobe Flash



ABSOLUTE MAXIMUM RATINGS

Symbol	Characteristics	Rating	Units
V_{CES}	Collector-Emitter Voltage	450	V
V_{GES}	Gate-Emitter Voltage	± 10	V
$I_{CM(1)}$	Pulsed Collector Current	150	A
P_C	Maximum Power Dissipation @ $T_c = 25^\circ\text{C}$	45	W
T_j	Operating Junction Temperature	$-55 \sim 150$	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	$-55 \sim 150$	$^\circ\text{C}$
T_L	Maximum Lead Temp. For Soldering Purposes, $\frac{1}{8}$ " from case for 5 seconds	300	$^\circ\text{C}$

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

SGR20N40L / SGU20N40L**N-CHANNEL IGBT****ELECTRICAL CHARACTERISTICS**(T_c=25°C, Unless Otherwise Specified)

Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
BV _{CES}	C - E Breakdown Voltage	V _{GE} = 0V , I _C = 250 μA	450	-	-	V
V _{GE(th)}	G - E threshold voltage	I _C = 250 μA , V _{CE} = V _{GE}	0.5	0.8	1.2	V
I _{CES}	Collector cutoff Current	V _{CE} = V _{CES} , V _{GE} = 0V	-	-	250	μA
I _{GES}	G - E leakage Current	V _{GE} = V _{GES} , V _{CE} = 0V	-	-	100	nA
V _{CE(sat)}	C - E Saturation voltage	I _C = 150A , V _{GE} = 4V	-	-	10	V
C _{ies}	Input capacitance	V _{GE} = 0V , f = 1MHz V _{CE} = 30V	-	-	-	pF
C _{oes}	Output capacitance		-	-	-	pF
C _{res}	Reverse transfer capacitance		-	-	-	pF
t _{d(on)}	Turn on delay time	V _{CC} = 300V , I _C = 150A V _{GE} = 5V R _G = 22 Ω Resistive Load	-	0.3	-	μS
t _r	Turn on rise time		-	0.9	-	μS
t _{d(off)}	Turn off delay time		-	0.8	-	μS
t _f	Turn off fall time		-	2.0	-	μS

THERMAL RESISTANCE

Symbol	Characteristics	Min	Typ	Max	Units
R _{θJC}	Junction-to-Case	-	-	3.0	°C/W
R _{θJA}	Junction-to-Ambient (PCB Mount)	-	-	50	°C/W
R _{θCS}	Junction-to-Ambient	-	-	110	°C/W

Notes : Mounted on 1" square PCB (FR4 or G-10 Material)