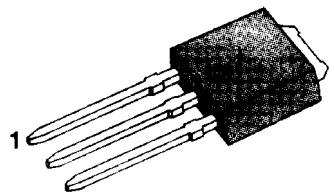
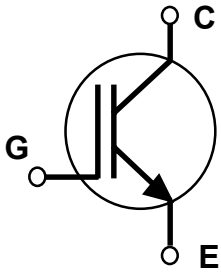
SGI25N40 *N-CHANNEL IGBT*

FEATURES

* High Input Impedance
* High Peak Current Capability(170A)
* Easy Drive by Gate Voltage

I^2 - PAK





APPLICATIONS

* STROBE FLASH

ABSOLUTE MAXIMUM RATINGS

Symbol	Characteristics		Rating	Unit
V_{CES}	Collector-Emitter Voltage		400	V
V_{GE}	Gate - Emitter Voltage		±25	V
I_C	Continuous Collector Current	Tc = 25℃	25	A
I_{CM}	Pulsed Collector Current(1mS)		170	A
P_D	Maximum Power Dissipation	Tc = 25℃	75	W
Tj	Operating Junction Temperature		-55 ~ 150	℃
Tstg	Storage Temperature Range			
T_L	Maximum Lead Temp. For Soldering Purposes,1/8" from case for 5 seconds		300	℃

ELECTRICAL CHARACTERISTICS (Tc=25℃)

Symbol	Characteristics	Test Conditions	Min	Typ	Max	Units
BV_{CES}	C - E Breakdown Voltage	V_{GE} = 0V , I_C = 250㎂	400	-	-	V
$V_{GE(th)}$	G - E threshold voltage	I_C =10mA , V_{CE} = 10V	3.0	-	6.0	V
I_{CES}	Collector cutoff Current	V_{CE} = 400V , V_{GE} = 0V	-	-	10	uA
I_{GES}	G - E leakage Current	V_{GE} = V_{GES} , V_{CE} = 0V	-	-	100	nA
V_{CE}(sat)	Collector to Emitter saturation voltage	I_C =170A , V_{GE} = 20V Tj = 25℃	-	5	8	V
Cies	Input capacitance	V_{GE} = 0V , f = 1㎒, V_{CE} = 10V	-	-	3.0	nF
ton	Turn on time	V_{CC} = 300V , Load = 12Ω	-	-	500	ns
tr	Turn on rise time	R_G = 51 Ω , V_{GE}= 20V	-	-	500	ns
toff	Turn off time	R- Load switching time operation	-	-	6000	ns
tf	Turn off fall time		-	-	7000	ns

THERMAL RESISTANCE

Symbol	Characteristics	Min	Typ	Max	Units
$R_{\theta}JC$	Junction-to-Case	-	-	1.2	℃/W
$R_{\theta}JA$	Junction-to-Ambient	-	-	40	℃/W
$R_{\theta}CS$	Case-to-Sink	-	0.24	-	℃/W

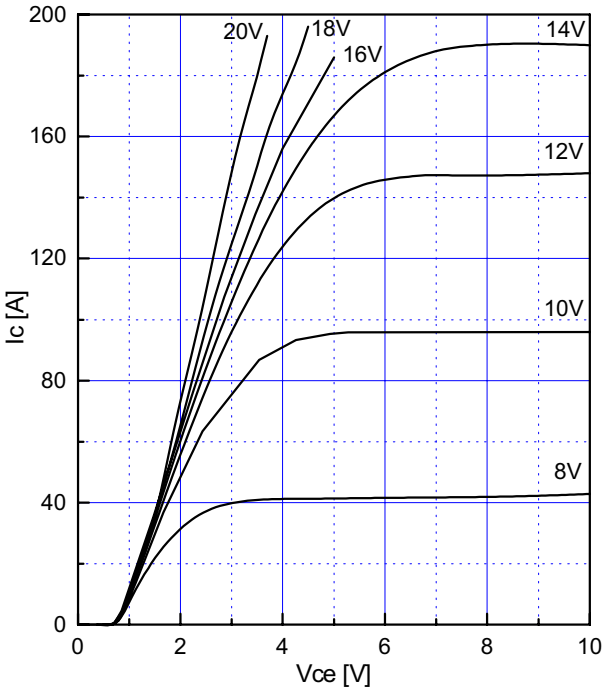


Fig.1 Typical Output Characteristics

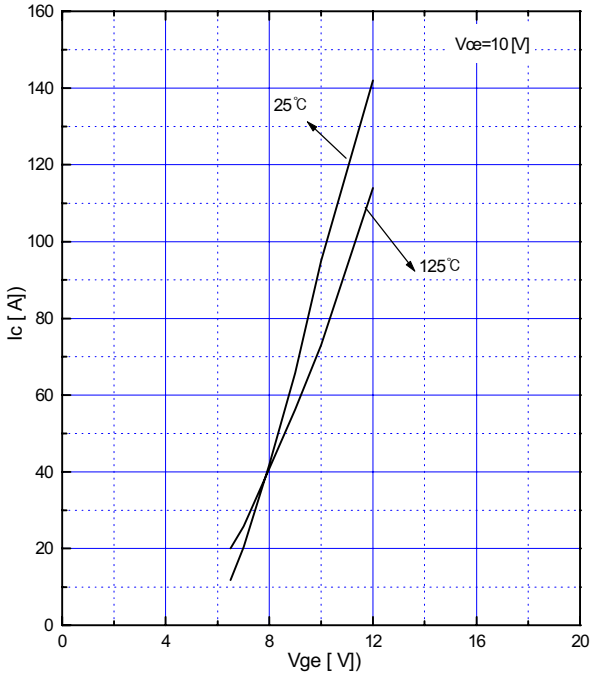


Fig.2 Typical Output Characteristics

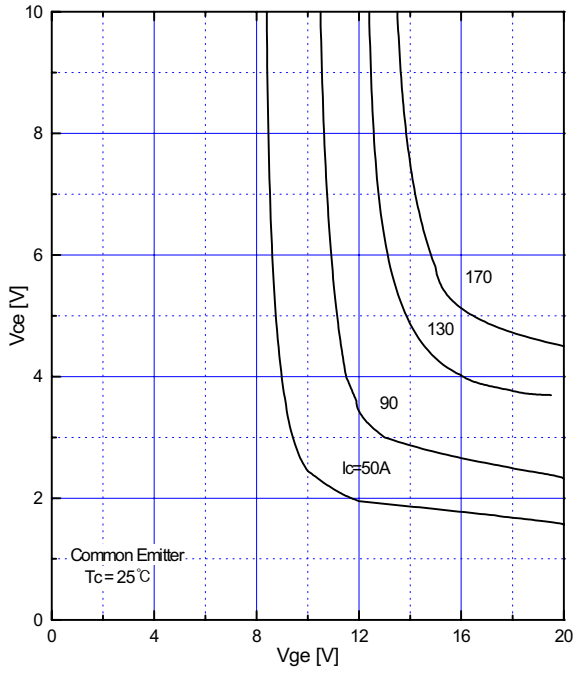


Fig.3 Collector-Emitter Saturation Voltage Characteristics

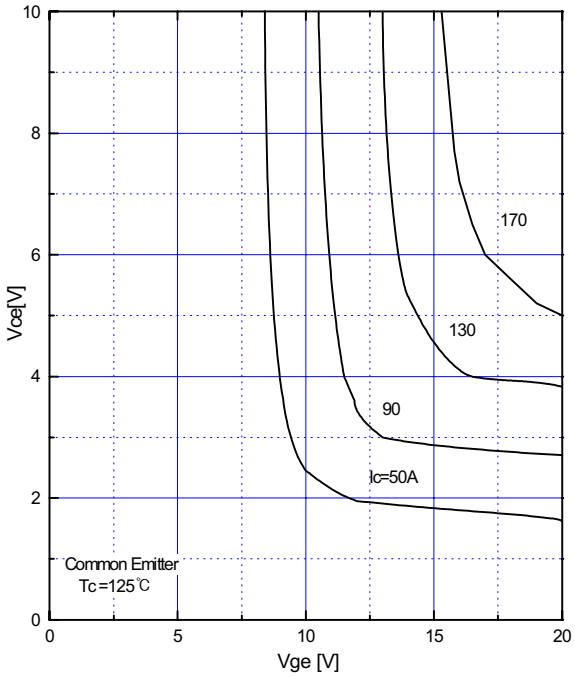


Fig.4 Collector-Emitter Saturation Voltage Characteristics