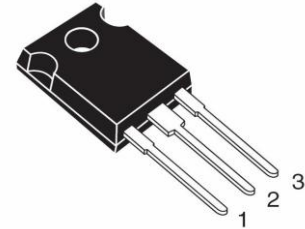


Ratings

Collector-Emitter Voltage	1200	V
Continuous Drain Current	6	A
Operating Temperature	175	°C



Electrical Characteristics

Parameters	Symbol	Conditions	Value			Unit
			Min	Typ	Max	

On characteristics

Collector-Emitter On-resistance	R_{CEon}	$I_C=6\text{ A}, I_B=350\text{ mA}, T_j=25^\circ\text{C}$	-	0.075	-	Ω
		$I_C=6\text{ A}, I_B=350\text{ mA}, T_j=175^\circ\text{C}$	-	0.14	-	Ω
Gain	Beta	$V_{CE}=5\text{ V}, I_C=6\text{ A}, T_j=25^\circ\text{C}$	-	52	-	-
		$V_{CE}=5\text{ V}, I_C=6\text{ A}, T_j=175^\circ\text{C}$	-	35	-	-

Off characteristics

Collector-Emitter Blocking Voltage	BV_{CE}	$I_B=0\text{ mA}$	1200	-	-	V
Total Collector Leakage Current	I_{CSS}	$V_{DS}=600\text{ V}, I_B=0\text{ mA}, T_j=25^\circ\text{C}$	-	1.5	-	μA
		$V_{DS}=600\text{ V}, I_B=0\text{ mA}, T_j=150^\circ\text{C}$	-	3.6	-	μA

Dynamic characteristics

Input Capacitance	C_{iss}	$V_{CE}=100\text{ V}$		2085		pF
Output Capacitance	C_{oss}	$V_{CE}=100\text{ V}$		-		pF
Reverse Transfer Capacitance	C_{rss}	$V_{CE}=100\text{ V}$		85		pF

Switching characteristics

Turn-on Energy	E_{on}	$V_{CE}=600\text{ V}, I_C=6\text{ A},$ Inductive load, $T_j=25^\circ\text{C}$ Base current = 300 mA, $R_{gext}=15\ \Omega$	-	65	-	μJ
Turn-off Energy	E_{off}		-	106	-	μJ
Total Switching Energy	E_{ts}		-	171	-	μJ
Turn-on Energy	E_{on}	$V_{CE}=600\text{ V}, I_C=6\text{ A},$ Inductive load, $T_j=150^\circ\text{C}$ Base current = 300 mA, $R_{gext}=15\ \Omega$	-	68	-	μJ
Turn-off Energy	E_{off}		-	109	-	μJ
Total Switching Energy	E_{ts}		-	177	-	μJ

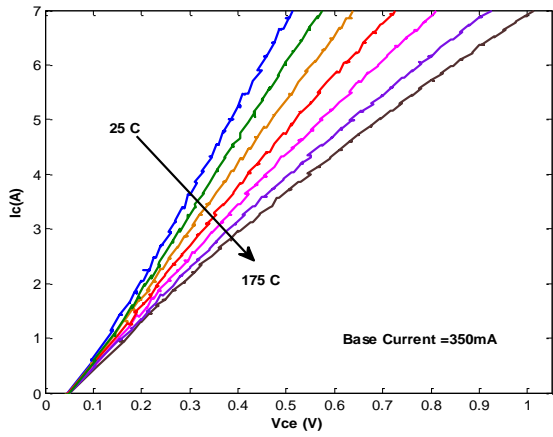


Fig.1: i-v curves

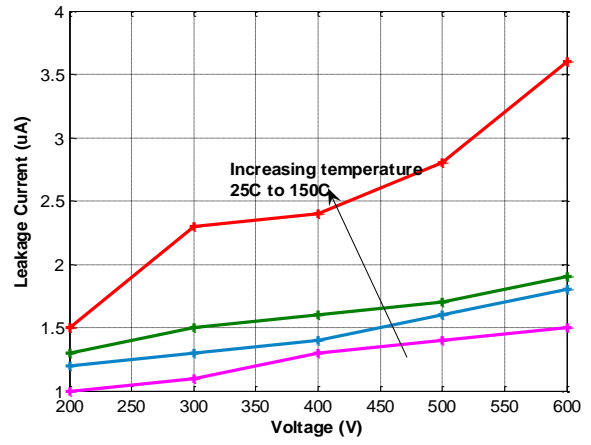


Fig.2: Leakage current vs voltage

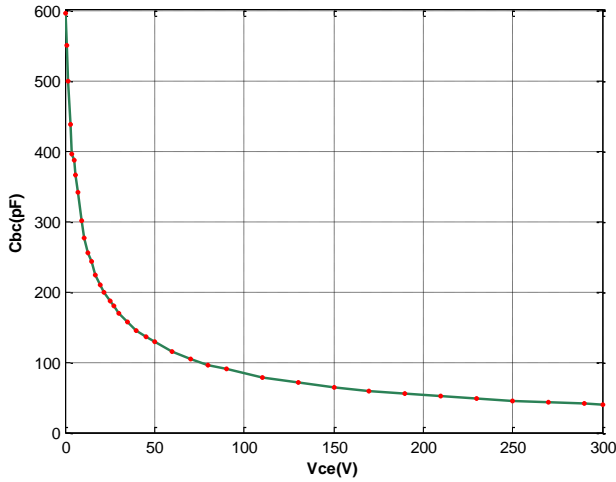


Fig.3: Cbc vs Vce

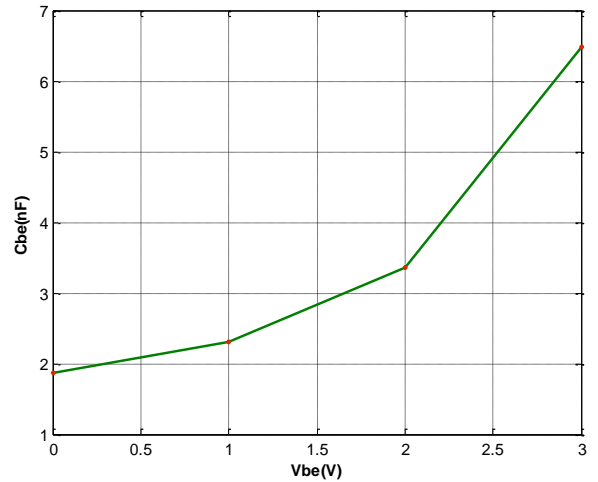


Fig.4: Cbe vs Vbe

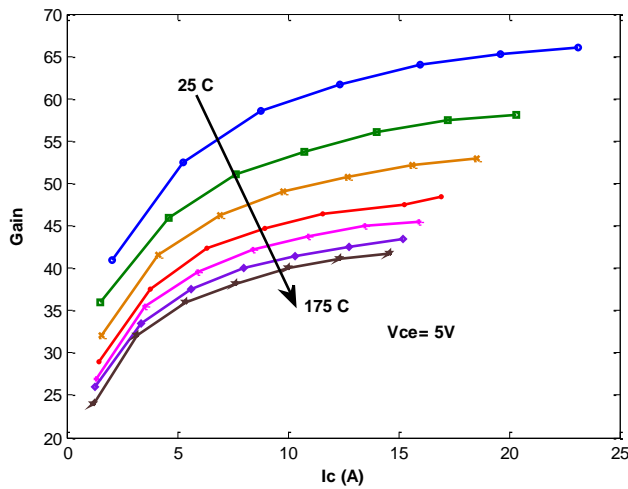


Fig.5: Cbc vs Vce

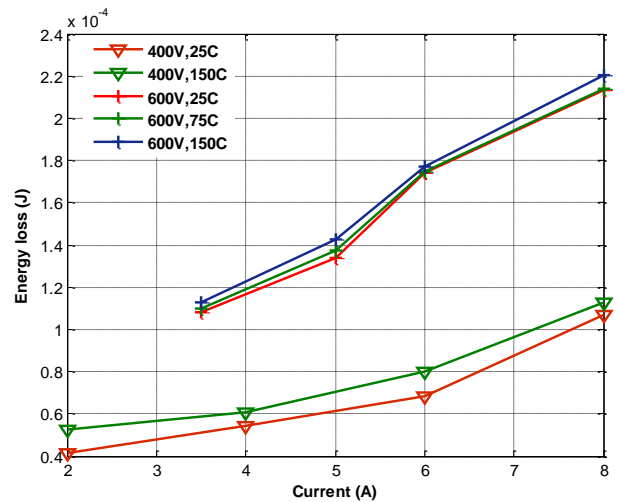


Fig.6: Total switching energy losses