

Ratings

Collector-Emitter Voltage	1200	V
Continuous Drain Current	100	A
Operating Temperature	175	°C

Electrical Characteristics

Parameters	Symbol	Conditions	Value			Unit
			Min	Typ	Max	

On characteristics

Collector-Emitter On-resistance	R_{DSon}	$I_D=20\text{ A}, V_{gs}=3\text{ V}, T_j=25^\circ\text{C}$	-	0.008	-	Ω
		$I_D=20\text{ A}, V_{gs}=3\text{ V}, T_j=175^\circ\text{C}$	-	0.033	-	Ω

Off characteristics

Collector-Emitter Blocking Voltage	BV_{DS}	$V_{gs}=0\text{ V}$	1200	-	-	V
Total Collector Leakage Current	I_{CSS}	$V_{DS}=600\text{ V}, V_{gs}=0\text{ V}, T_j=25^\circ\text{C}$	-	381	-	μA
		$V_{DS}=600\text{ V}, V_{gs}=0\text{ V}, T_j=150^\circ\text{C}$	-	390	-	μA

Switching characteristics

Turn-on Energy	E_{on}	$V_{DS}=600\text{ V}, I_D=80\text{ A},$ Inductive load, $T_j=25^\circ\text{C}$	-	0.75	-	mJ
Turn-off Energy	E_{off}		-	1.5	-	mJ
Total Switching Energy	E_{ts}	$V_{gs}=3\text{ V}$	-	2.25	-	mJ
Turn-on Energy	E_{on}	$V_{DS}=600\text{ V}, I_D=80\text{ A},$ Inductive load, $T_j=150^\circ\text{C}$	-	0.8	-	mJ
Turn-off Energy	E_{off}		-	1.4	-	mJ
Total Switching Energy	E_{ts}		$V_{gs}=3\text{ V}$	-	2.2	-

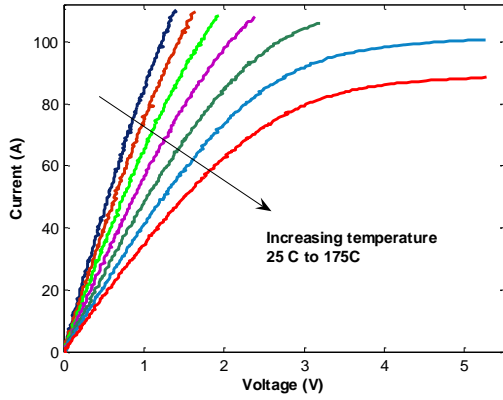


Figure 1: i-v curves

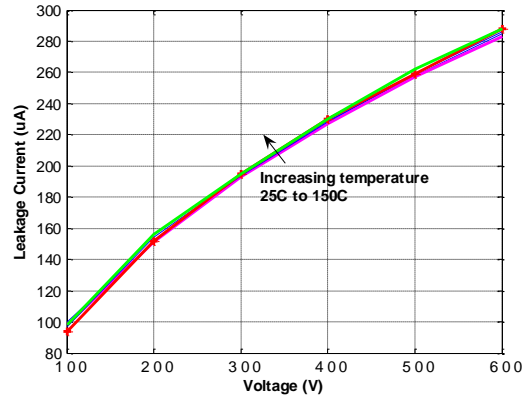
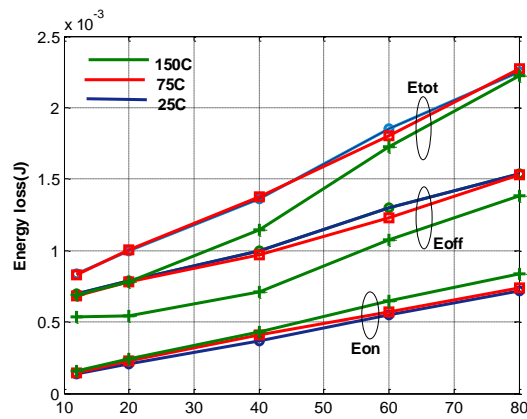


Figure 2: Leakage Current



**Figure 3: Switching energy losses
 at 600 V**