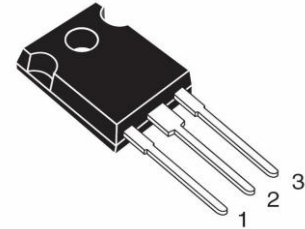


Ratings

Collector-Emitter Voltage	1200	V
Continuous Drain Current	33	A
Operating Temperature	200	°C



Electrical Characteristics

Parameters	Symbol	Conditions	Value			Unit
			Min	Typ	Max	

On characteristics

Collector-Emitter On-resistance	R_{DSon}	$I_D=10\text{ A}, V_{GS}=20\text{V}, T_j=25^\circ\text{C}$	-	0.098	-	Ω
		$I_D=10\text{ A}, V_{GS}=20\text{V}, T_j=75^\circ\text{C}$	-	0.098	-	Ω
		$I_D=10\text{ A}, V_{GS}=20\text{V}, T_j=125^\circ\text{C}$	-	0.103	-	Ω
		$I_D=10\text{ A}, V_{GS}=20\text{V}, T_j=175^\circ\text{C}$	-	0.117	-	Ω

Switching characteristics

Total Switching Energy	E_{ts}	$V_{DS}=600\text{V}, I_D=23\text{A},$ Inductive load, $T_j=25^\circ\text{C}$ $V_{gs}=20\text{V}$	-	1.008	-	mJ
Total Switching Energy	E_{ts}	$V_{DS}=600\text{V}, I_D=23\text{ A},$ Inductive load, $T_j=125^\circ\text{C}$ $V_{gs}=20\text{V}$	-	1.07	-	mJ
Total Switching Energy	E_{ts}	$V_{DS}=400\text{V}, I_D=22\text{ A},$ Inductive load, $T_j=25^\circ\text{C}$ $V_{gs}=20\text{V}$	-	592	-	μJ
Total Switching Energy	E_{ts}	$V_{DS}=400\text{V}, I_D=22\text{ A},$ Inductive load, $T_j=125^\circ\text{C}$ $V_{gs}=20\text{V}$	-	604	-	μJ

Capacitance

Gate source capacitance	C_{gs}	$V_{GS}=0V, V_{DS}=0$	-	2.16	-	nF
Drain source capacitance	C_{ds}	$V_{DS}=200V, V_{GS}=0V$	-	174	-	pF
Drain gate capacitance	C_{dg}	$V_{DS}=200V, V_{GS}=0V$	-	25	-	pF

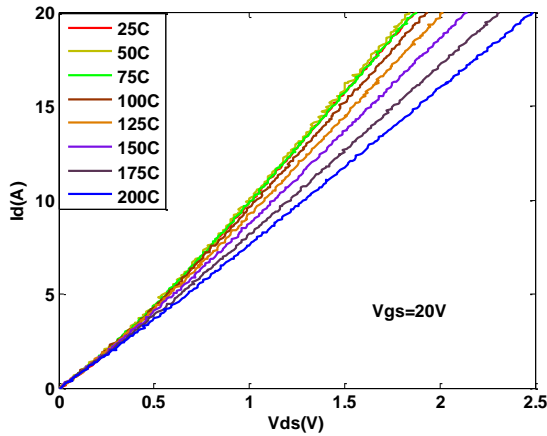


Fig. 1. Forward characteristic of 1,200 V, 33 A MOSFET.

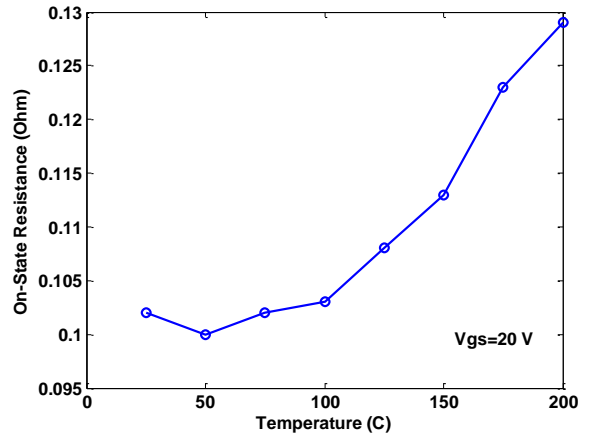


Fig. 2. On-state resistance of 1,200 V, 33 A MOSFET.

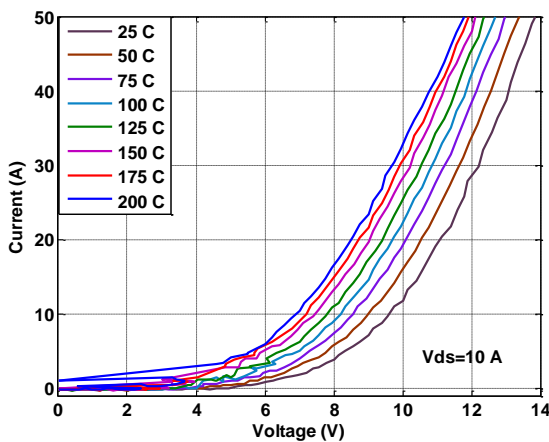


Fig. 3. Transfer characteristic at different temperatures

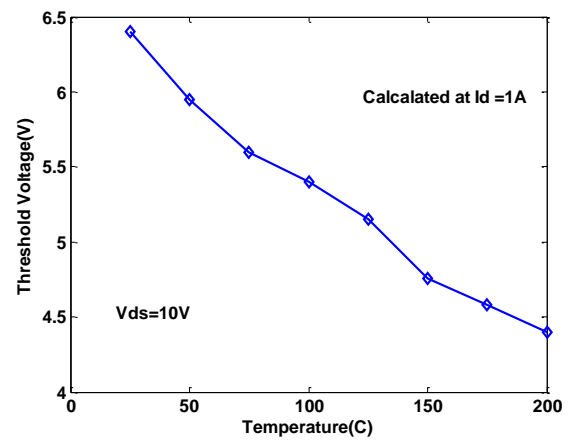


Fig. 4. Threshold voltage vs temperature.

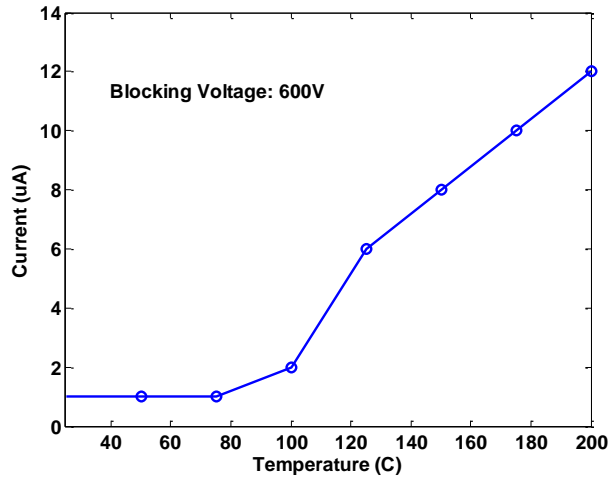


Fig. 5. Leakage current of 1,200 V, 33 A MOSFET.

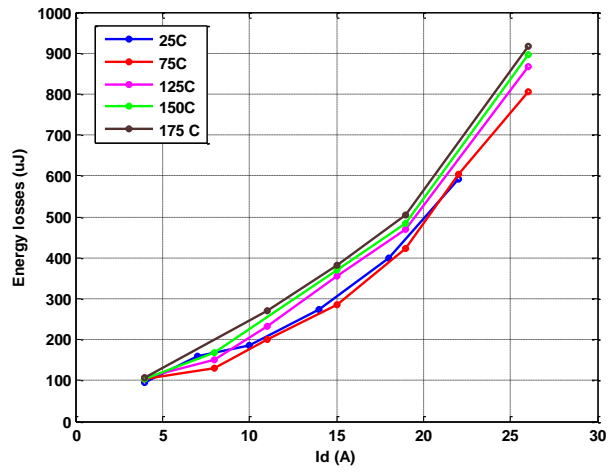


Fig.6: Switching Energy Losses at 400 V

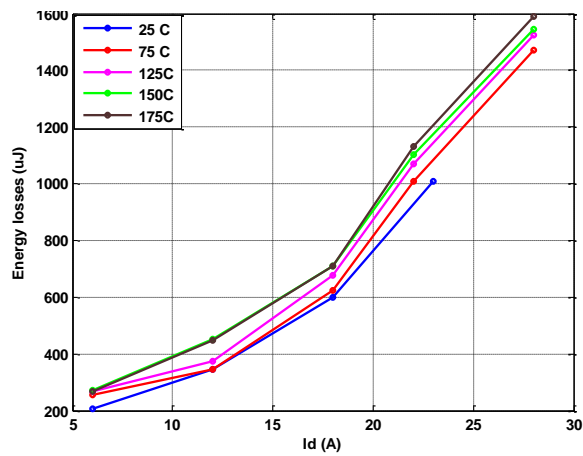


Fig.7: Switching Energy Losses at 600 V