

120V N-Ch Power MOSFET

V_{DS}

Electrical Characteristics at $T_j=25^\circ\text{C}$ (unless otherwise specified)

Static Characteristics

Parameter	Symbol	Conditions	Value			Unit
			min	typ	max	
Drain to Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0\text{V}, I_D=250\text{ A}$	120	-	-	V
		$V_{GS}=0\text{V}, V_{DS}=120\text{V}, T_j=100^\circ\text{C}$	-	-	4	$\frac{\text{A}}{\text{ETBT/F1 5.459.94 59}}$
	I_{GSS}	$V_{GS}=\pm 20\text{V}, V_{DS}=0\text{V}$	-	-	12.5	nA m

Fig 1. Typical Output Characteristics

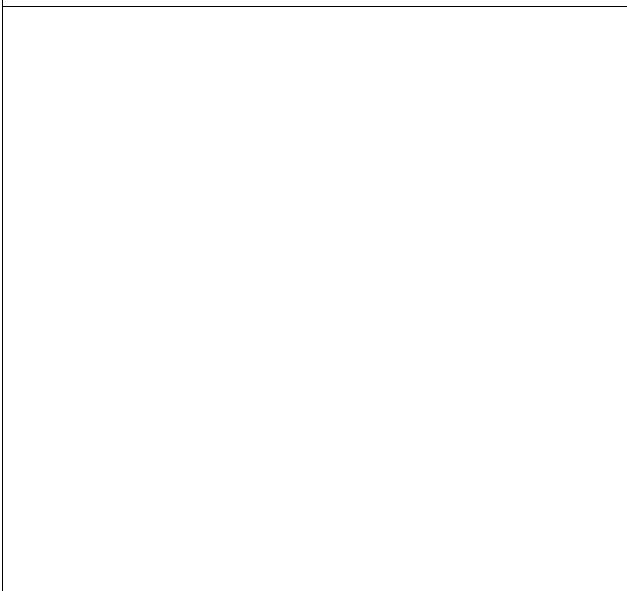


Figure 2. On-Resistance vs. Gate-Source Voltage

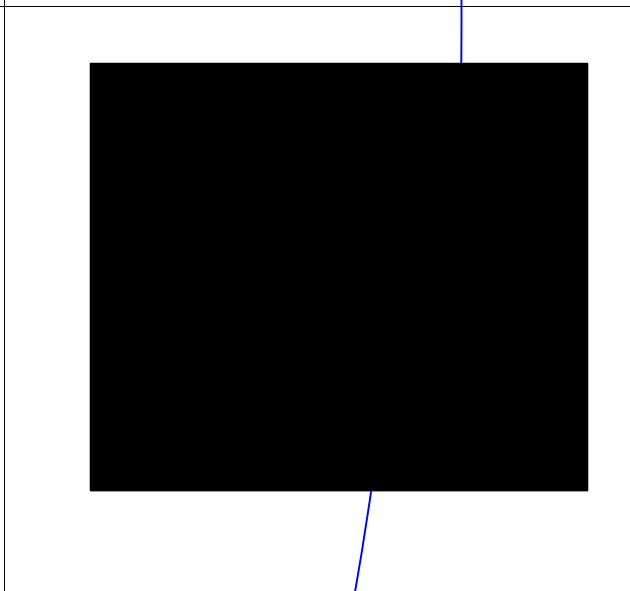


Figure 3. On-Resistance vs. Drain Current and Gate Voltage

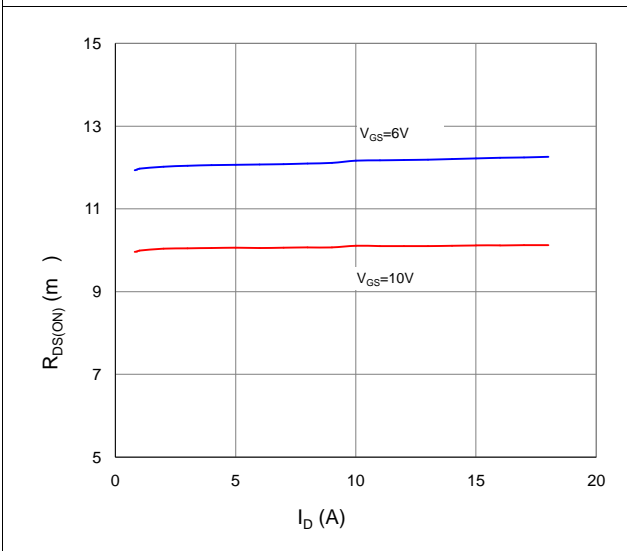


Figure 4. Normalized On-Resistance vs. Junction Temperature

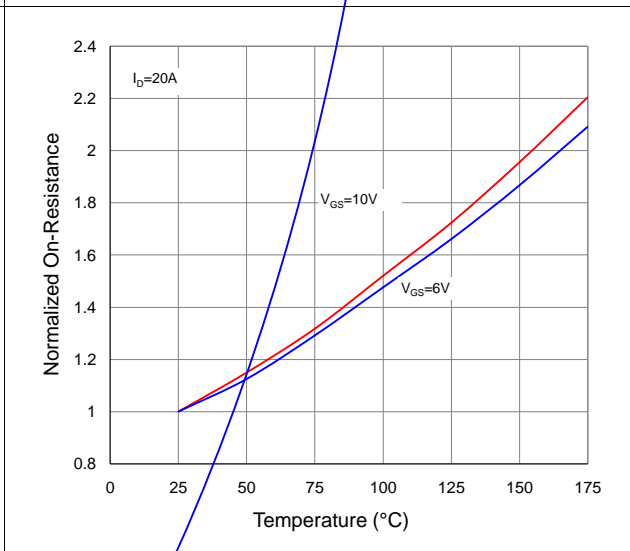


Figure 5. Typical Transfer Characteristics

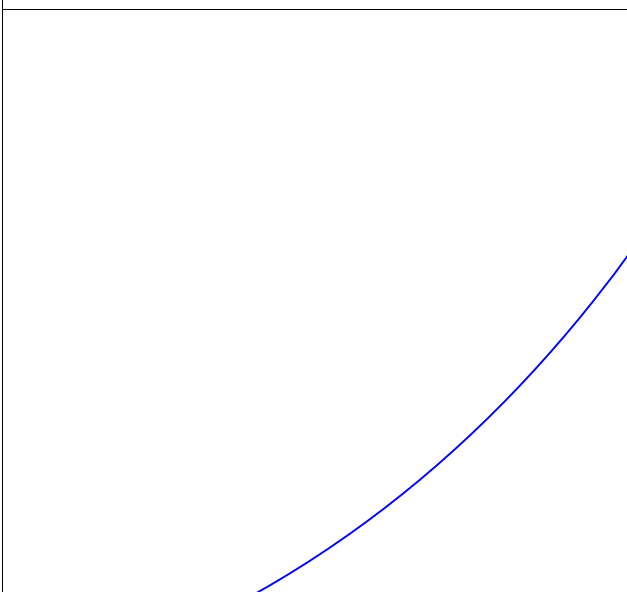


Figure 6. Typical Source-Drain Diode Forward Voltage

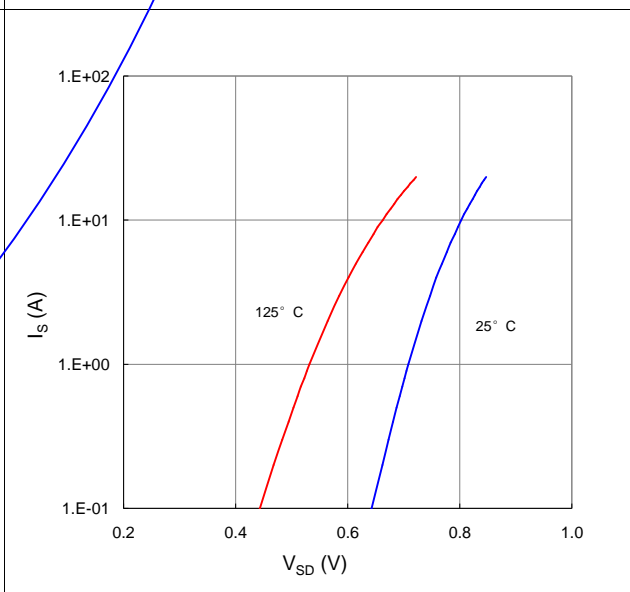


Figure 7. Typical Gate-Charge vs. Gate-to-Source Voltage



Figure 8. Typical Capacitance vs. Drain-to-Source Voltage

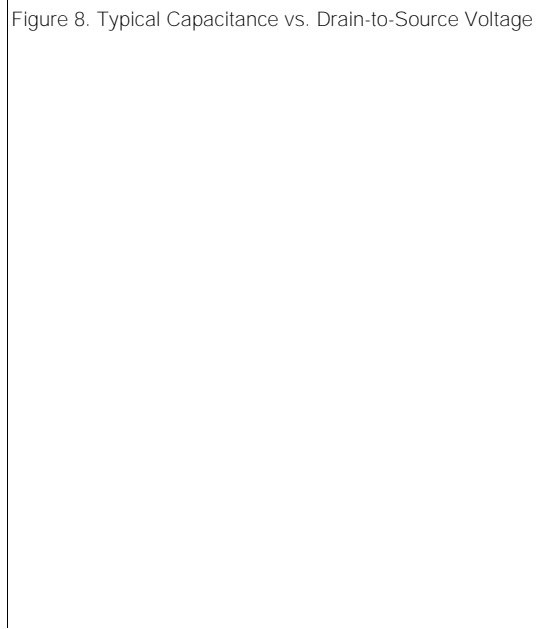
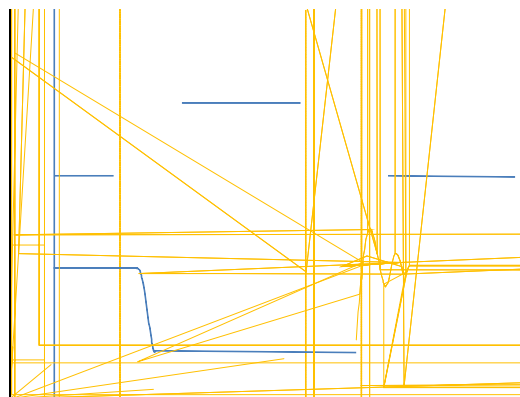
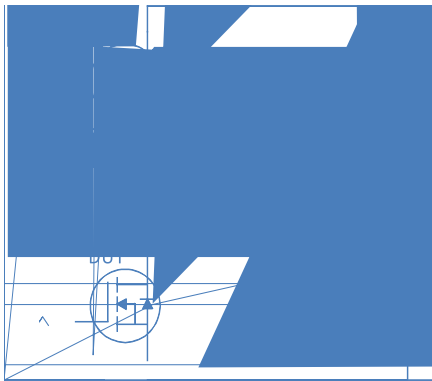


Figure 9. Maximum Safe Operating Area

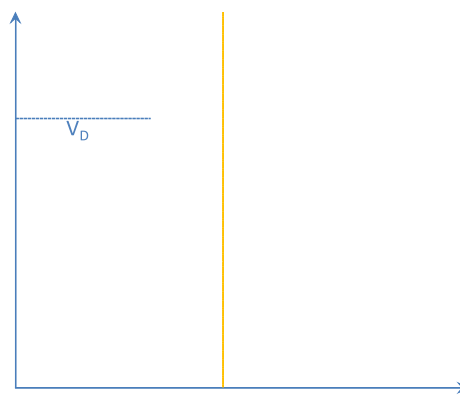
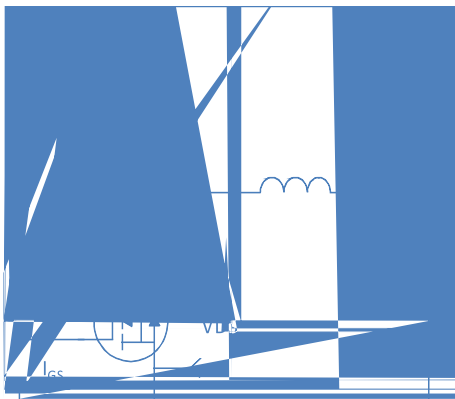
Figure 10. Maximum Drain Current vs. Case Temperature

Figure 11. Normalized Maximum Transient Thermal Impedance, Junction-to-Ambient

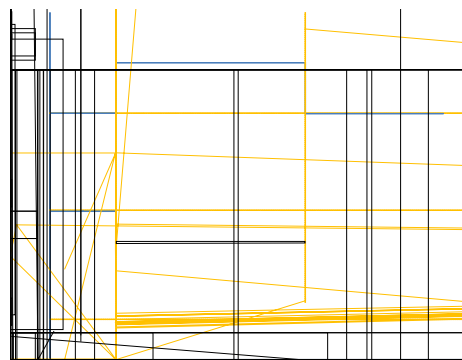
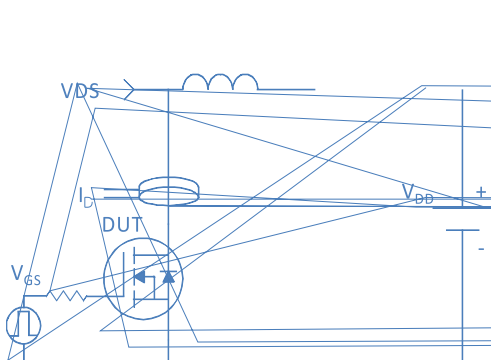
Inductive switching Test



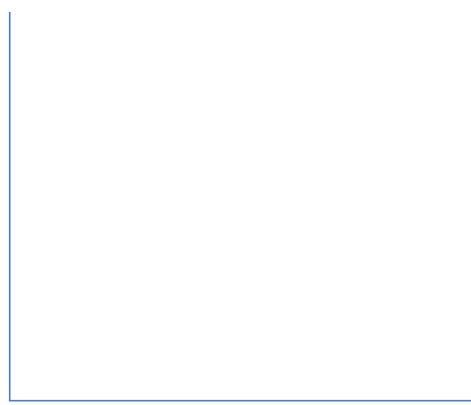
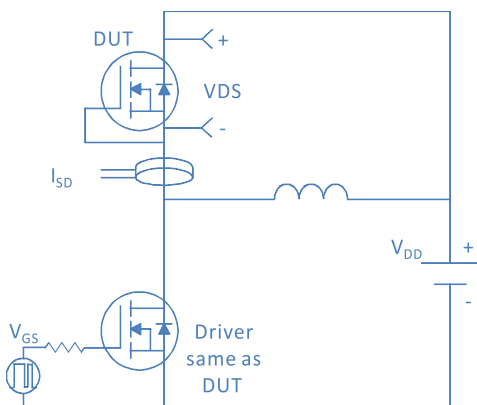
Gate Charge Test



Uclamped Inductive Switching (UIS) Test



Diode Recovery Test



Package Outline

TO-220F, 3 Leads