THERMAL RESISTANCE MAXIMUM RATINGS

Parameter	Symbol	Max	Unit
Junction−to−Case − Steady State (Note 1)	$R_{\theta JC}$	1.01	°C/W
Junction−to−Ambient − Steady State (Note 1)	$R_{\theta JA}$	40	

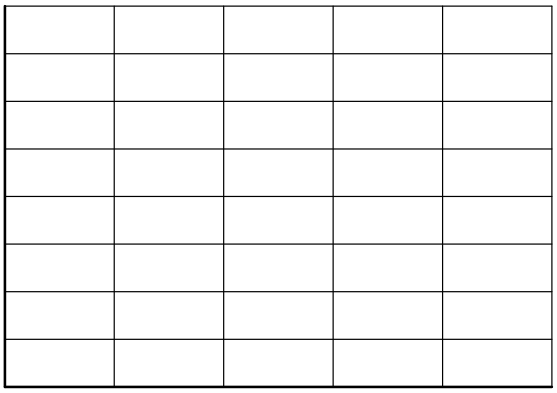
ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
OFF CHARACTERISTICS						
Drain−to−Source Breakdown Voltage	$V_{(BR)DSS}$	V_{GS} = 0 V, I_D = 1 mA	650	−	−	V
Drain−to−Source Breakdown Voltage Temperature Coefficient	$V_{(BR)DSS}/T_J$	I_D = 20 mA, referenced to 25°C				

ELECTRICAL CHARACTERISTICS (T_J = 25°C unless otherwise specified) (continued)

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
DRAIN−SOURCE DIODE CHARACTERISTICS						
Reverse Recovery Time	t_{RR}	V_{GS} = −5/18 V, I_{SD} = 15 A, dI_S/dt = 1000 A/μs	−	18	−	ns
Reverse Recovery Charge	Q_{RR}		−	85	−	nC
Reverse Recovery Energy	E_{REC}		−	10.6	−	μJ

TYPICAL CHARACTERISTICS (CONTINUED)



Q_g, GATE CHARGE (nC)

Figure 7. Gate−to−Source Voltage vs. Total Charge

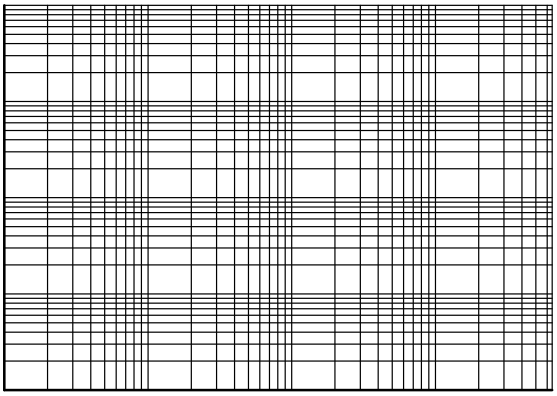
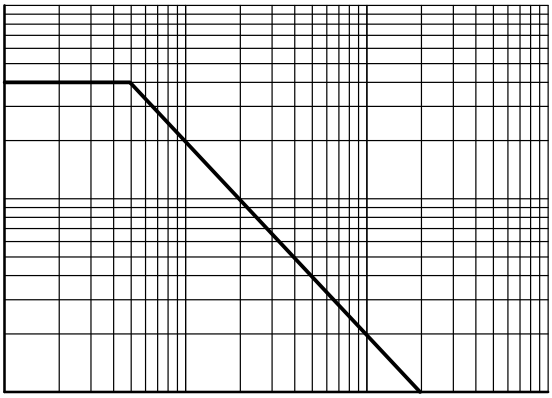


Figure 8. Capacitance vs. Drain−to−Source Voltage



t_{AV}

Figure 9. Unclamped Inductive Switching Capability

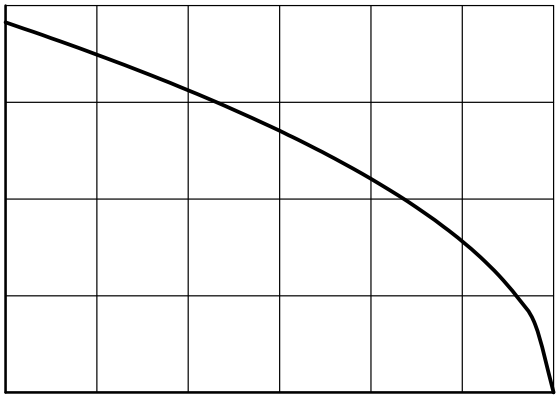
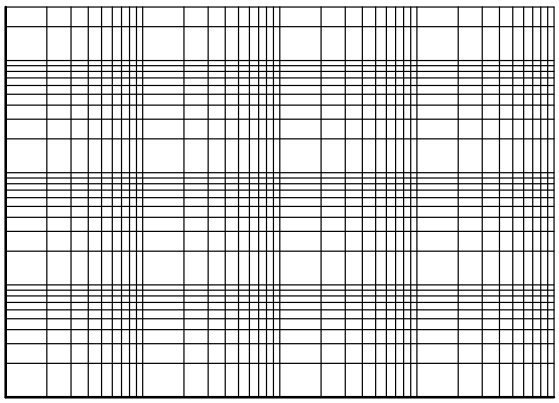
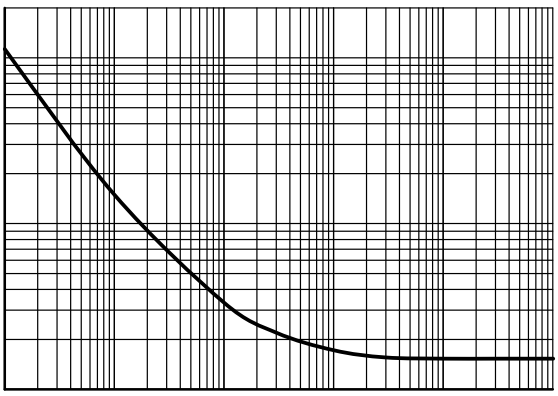


Figure 10. Maximum Continuous Drain Current vs. Case Temperature





TYPICAL CHARACTERISTICS (CONTINUED)

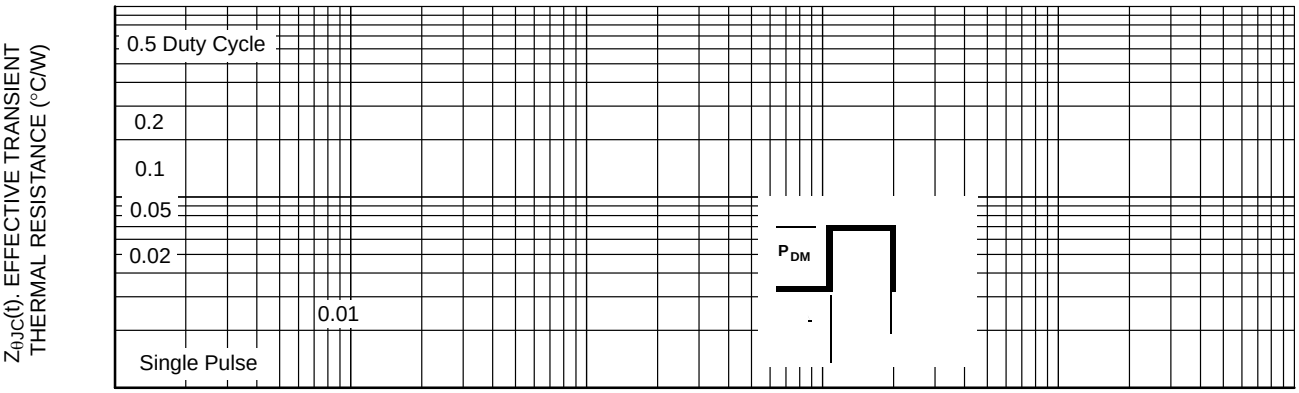
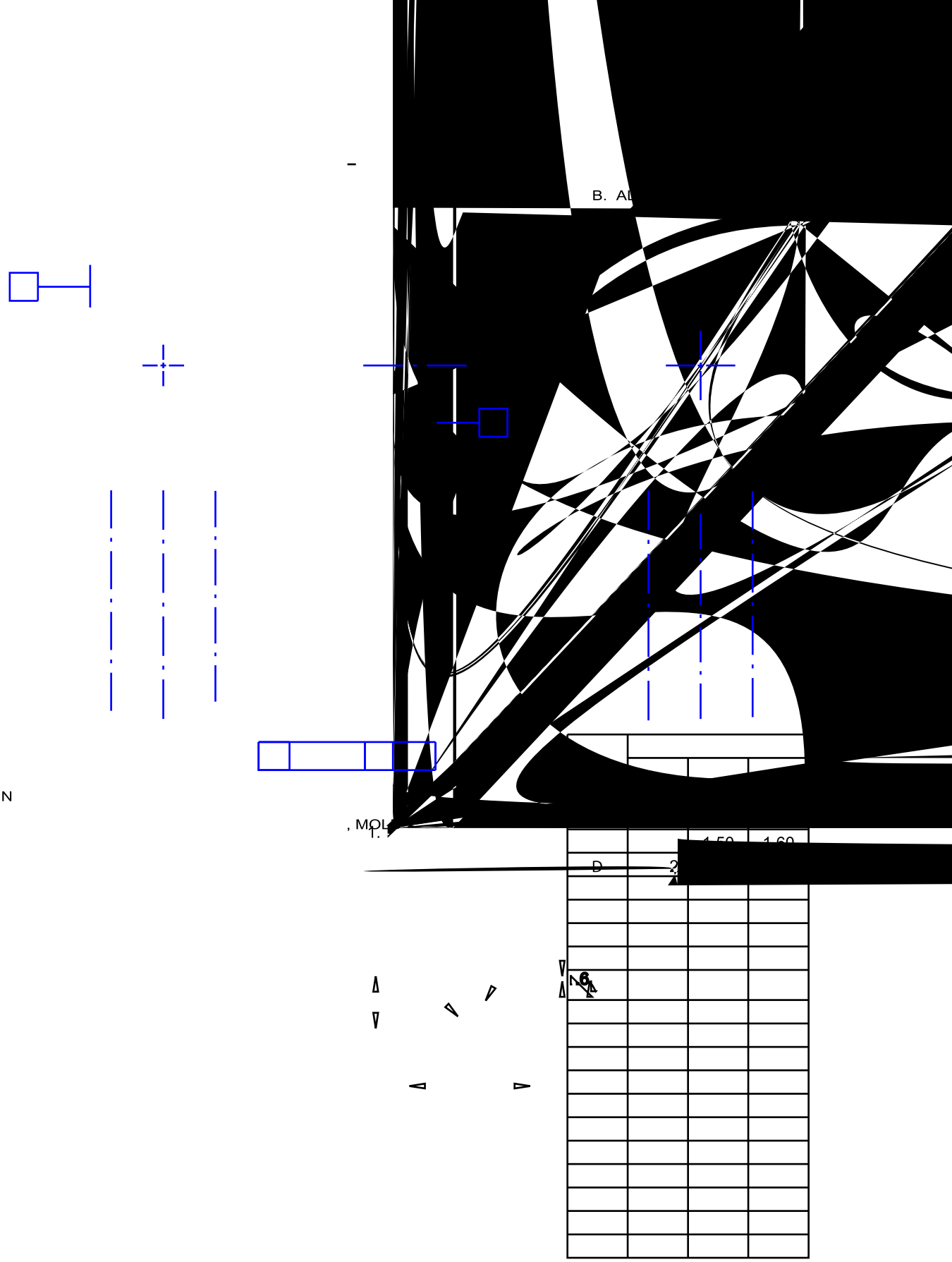


Figure 13. Junction−to−Case Thermal Response



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