S C (S C) MOSFET - E S C, 19 , 650 V, M2, TO-247-3L NTHL025N065SC1

Features

• Typ. R_{DS/TTe69} cm 0 0 191.9874 75 0 TD-0Typ. RIFeaturemF1 6dSmF.742.216.0012 T TBaler Nmbe4[T)65@ V2.w[DS)57 1. 0 1e69 cm 0 0 191.70(T)6GS2.2 202.

THERMAL RESISTANCE MAXIMUM RATINGS

Parameter	Symbol	Max	Unit
Junction to Case Steady State (Note 1)	$R_{ ext{ heta}JC}$	0.43	°C/W
Junction to Ambient Steady State (Note 1)	R_{\thetaJA}	40	

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

Parameter	Symbol	Test Condition	Min	Тур	Max	Unit
OFF CHARACTERISTICS						

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	$I_D = 20 \text{ mA}, \text{ reference}$		0.15		V/°C	
Zero Gate Voltage Drain Current	I _{DSS}	V _{GS} = 0 V, V _{DS} = 650 V	$T_J = 25^{\circ}C$			10	μΑ
	$v_{DS} = 650 v$		T _J = 175°C			1	mA
Gate to Source Leakage Current	I _{GSS}	V_{GS} = +18/ 5 V, V_{DS}			250	nA	

ON CHARACTERISTICS (Note 2)

Gate Threshold Voltage

_

V

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

Parameter

TYPICAL CHARACTERISTICS

TYPICAL CHARACTERISTICS (CONTINUED)

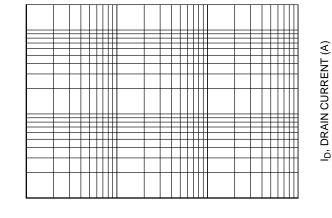
V_{GS}, GATE TO SOURCE VOLTAGE (V)

I _D = 4	5 A			
		V _{DD} =	390 V	





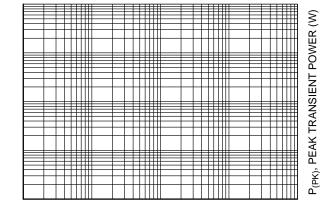
I_{AS}, AVALANCHE CURRENT (A)



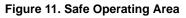
t_{AV}, TIME IN AVALANCHE (ms)

Figure 9. Unclamped Inductive Switching Capability

ID, DRAIN CURRENT (A)



V_{DS}, DRAIN TO SOURCE VOLTAGE (V)



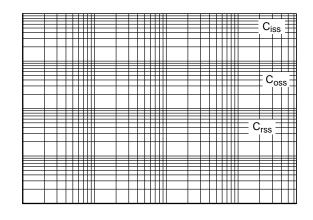
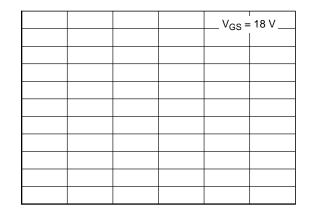
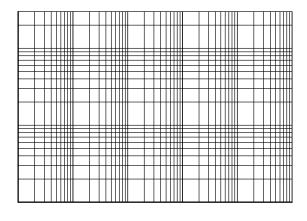


Figure 8. Capacitance vs. Drain-to-Source Voltage



T_C, CASE TEMPERATURE (°C)

Figure 10. Maximum Continuous Drain Current vs. Case Temperature



t, PULSE WIDTH (sec)

Figure 12. Single Pulse Maximum Power Dissipation

TYPICAL CHARACTERISTICS (CONTINUED)

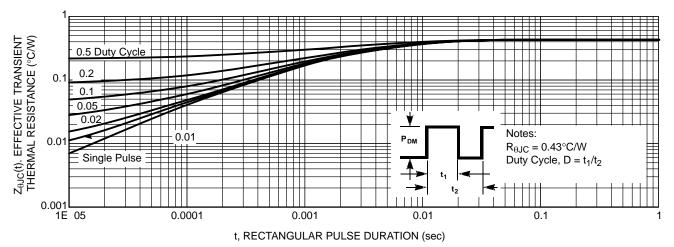
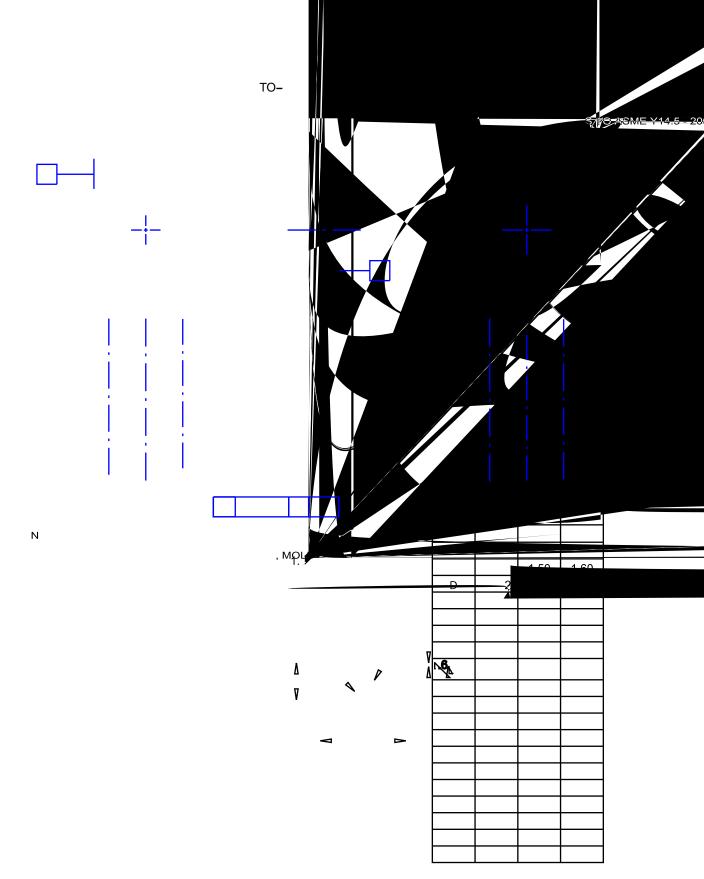


Figure 13. Junction-to-Case Thermal Response



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