

TSM70N900

700V, 4.5A, 0.9

N-Channel Power MOSFET



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Thermal Performance

Parameter	Symbol	Limit		Unit
		ITO-220	IPAK/DPAK	
Junction to Case Thermal Resistance	R_{JC}	6.25	2.5	$^{\circ}\text{C}/\text{W}$
Junction to Ambient Thermal Resistance	R_{JA}	62		$^{\circ}\text{C}/\text{W}$

Electrical Specifications ($T_C = 25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Static ^(Note 4)						
Drain-Source Breakdown Voltage	$V_{GS} = 0\text{V}, I_D = 250\mu\text{A}$	BV_{DSS}	700	--	--	V
Gate Threshold Voltage	$V_{DS} = V_{GS}, I_D = 250\mu\text{A}$	$V_{GS(TH)}$	2	3.1	4	V
Gate Body Leakage	$V_{GS} = \pm 30\text{V}, V_{DS} = 0\text{V}$	I_{GSS}	--	--	± 100	nA
Zero Gate Voltage Drain Current	V_{DS}					



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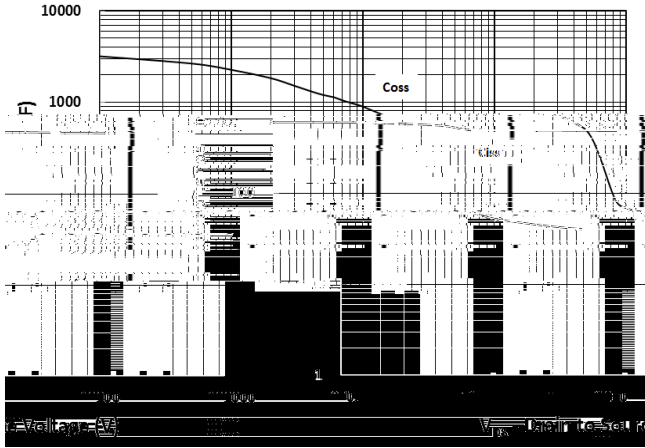
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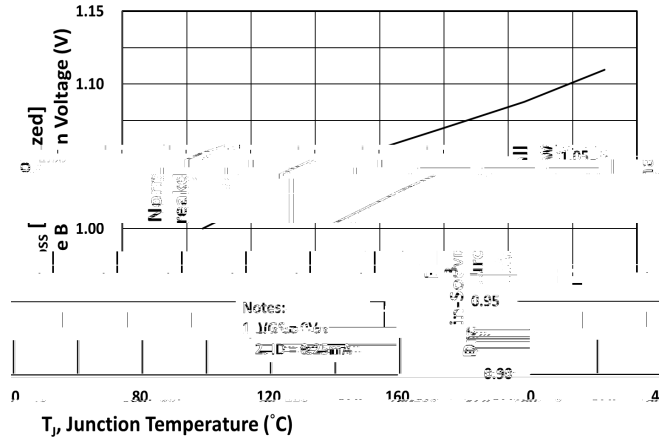
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Electrical Characteristics Curves

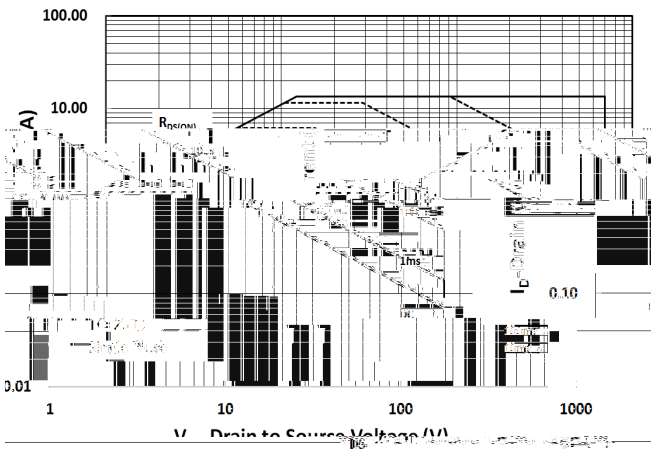
Capacitance vs. Drain-Source Voltage



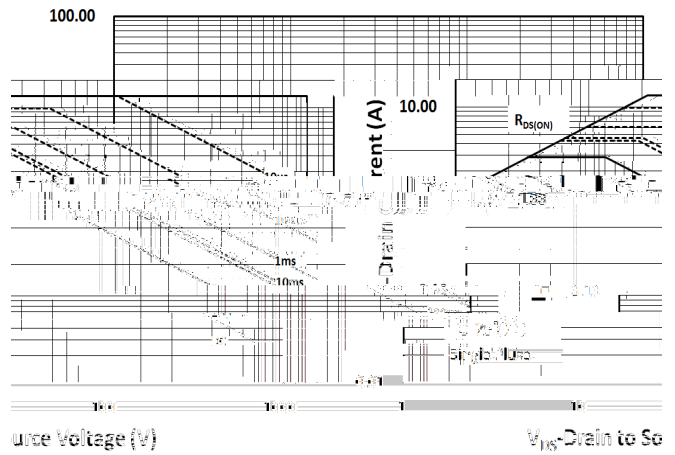
BV_{DSS} vs. Junction Temperature



Maximum Safe Operating Area (DPAK/IPAK)

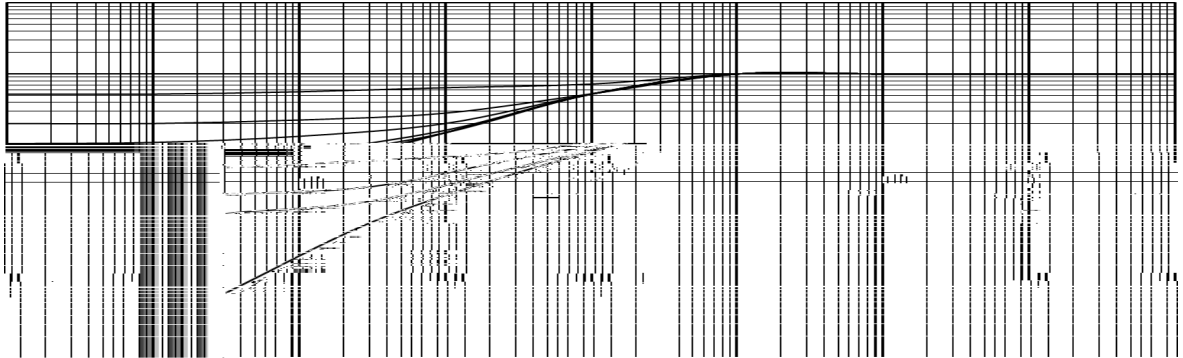


Maximum Safe Operating Area (ITO-220)

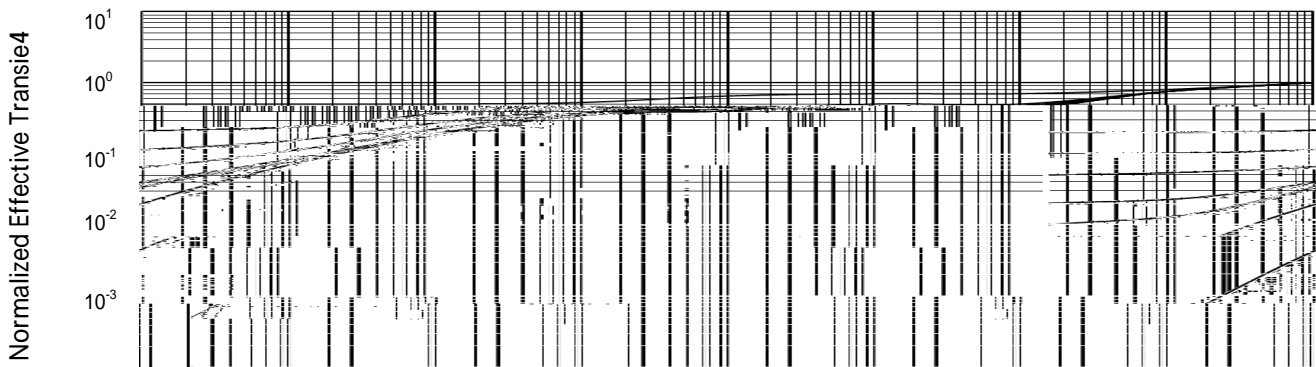


Electrical Characteristics Curves

Normalized Thermal Transient Impedance, Junction-to-Case (DPAK/IPAK)



Normalized Thermal Transient Impedance, Junction-to-Case (ITO-220)

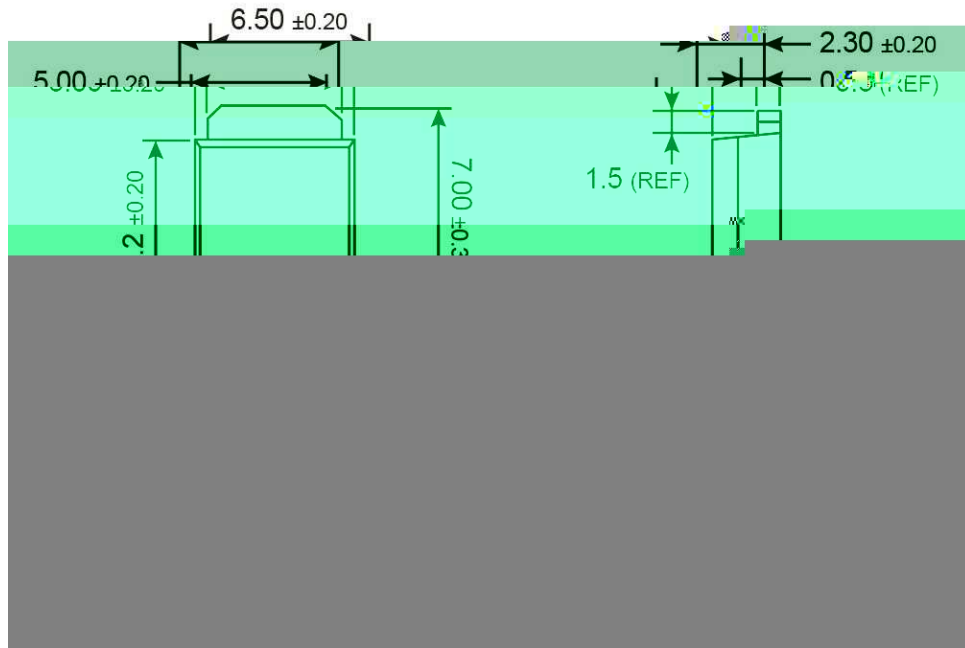


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TO-251 (IPAK) Mechanical Drawing



Unit: Millimeters

Marking Diagram



Y = Year Code

M = Month Code for Halogen Free Product

(**O**=Jan, **P**=Feb, **Q**=Mar, **R**=Apr, **S**=May, **T**=Jun, **U**=Jul, **V**=Aug, **W**=Sep,

X=Oct, **Y**=Nov, **Z**)

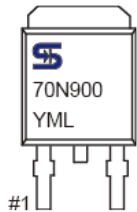


TO-252 (DPAK) Mechanical Drawing



Unit: Millimeters

Marking Diagram



- Y** = Year Code
- M** = Month Code for Halogen Free Product
(**O**=Jan, **P**=Feb, **Q**=Mar, **R**=Apr, **S**=May, **T**=Jun, **U**=Jul, **V**=Aug, **W**=Sep, **X**=Oct, **Y**=Nov, **Z**=Dec)
- L** = Lot Code



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