

N-CHANNEL ENHANCEMENT MODE TRANSISTOR

Features

- High Input Impedance
- Fast Switching Speed
- CMOS Logic Compatible Input
- No Thermal Runaway or Secondary Breakdown

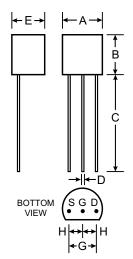
Mechanical Data

• Case: TO-92, Plastic

Leads: Solderable per MIL-STD-202,

Method 208

Pin Connection: See DiagramWeight: 0.18 grams (approx.)



TO-92				
Dim	Min	Max		
Α	4.45 4.70			
В	4.46	4.70		
С	12.7	_		
D	0.41	0.63		
E	3.43	3.68		
G	2.42	2.67		
Н	1.14	1.40		
All Dimensions in mm				

Maximum Ratings @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	
Drain-Source Voltage	V _{DSS}	60	V	
Drain-Gate Voltage	V _{DGS}	V _{DGS} 60		
Gate-Source-Voltage (pulsed)	V _{GS}	±20	V	
Drain Current (continuous)	I _D	300	mA	
Power Dissipation @T _C = 25°C (Note 1)	P _d	830	mW	
Junction Temperature	Tj	150	°C	
Operating and Storage Temperature Range	T _j , T _{STG}	-55 to +150	°C	

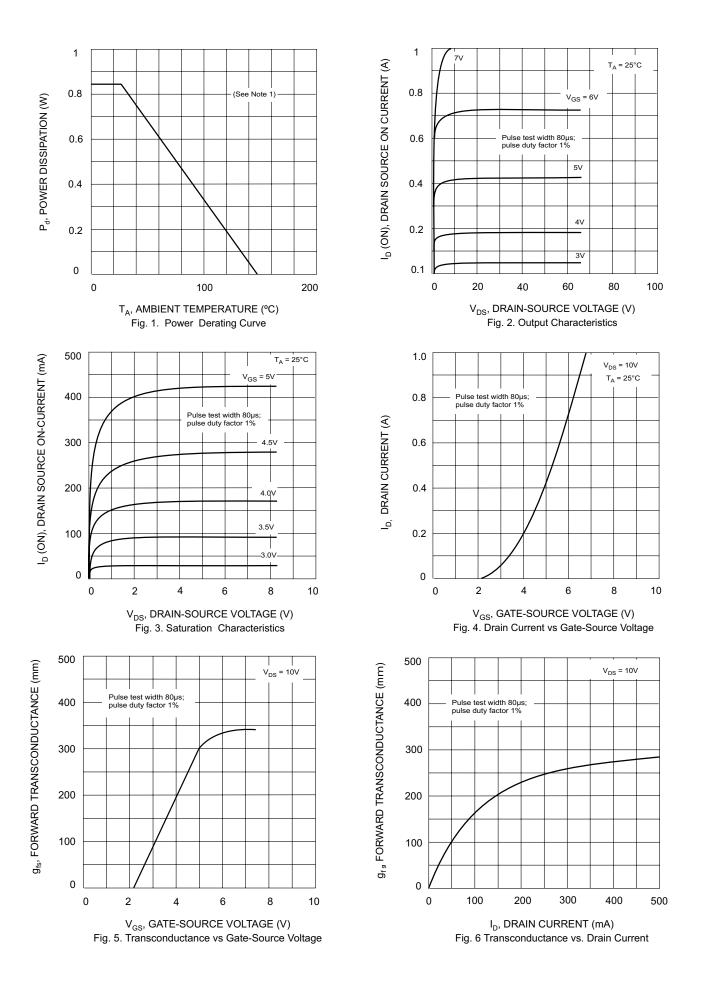
Inverse Diode @ T_A = 25°C unless otherwise specified

Characteristic	Symbol	Value	Unit	
Maximum Forward Current (continuous)	I _F	0.50	Α	
Forward Voltage Drop (typ.) @ V _{GS} = 0, I _F = 0.5A, T _j = 25°C	V _F	0.85	V	

Electrical Characteristics @ TA = 25°C unless otherwise specified

Characteristic	Symbol	Min	Тур	Max	Unit	Test Condition
Drain-Source Breakdown Voltage	V _{(BR)DSS}	60	90	_	V	$I_D = 100 \mu A, V_{GS} = 0$
Gate Threshold Voltage	V _{GS(th)}	0.8	1.0	3.0	V	$V_{GS} = V_{DS}$, $I_D = 1.0 \text{mA}$
Gate-Body Leakage Current	I _{GSS}	_	_	10	nA	$V_{GS} = 15V, V_{DS} = 0$
Drain-Cutoff Current	I _{DSS}	_	_	0.5	μA	$V_{DS} = 25V, V_{GS} = 0$
Drain-Source ON Resistance	r _{DS (ON)}	_	3.5	5.0	W	$V_{GS} = 10V, I_D = 0.2mA$
Thermal Resistance, Junction to Ambient Air	$R_{\theta JA}$	_	_	150	K/W	Note 1
Forward Transconductance	g _{FS}	_	200	_	mm	$V_{DS} = 10V, I_D = 0.2A, f = 1MHz$
Input Capacitance	C _{iss}	_	60	_	pF	$V_{DS} = 10V, V_{GS} = 0, f = 1.0MHz$
Turn On Time Turn Off Time	t _{on} t _{off}	_	5.0 15	_	ns	$V_{GS} = 10V, V_{DS} = 10V,$ $R_D = 100W$

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 2.0mm from case.



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