

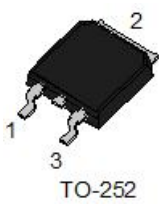
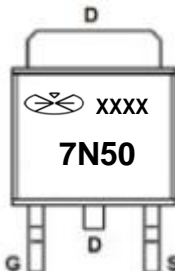
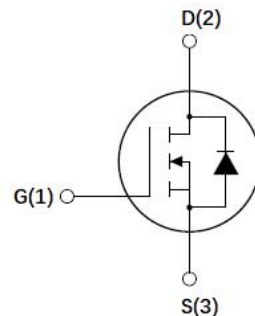


7N50

N-Channel Mode Power MOSFET

<p>Features</p> <ul style="list-style-type: none"> • Excellent package for good heat dissipation • High switching speed • 100% avalanche tested 	<p>Application</p> <ul style="list-style-type: none"> • Power switching application
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Package

Package Marking and Ordering Information

Product ID	PACK	Qty (pcs)
7N50	TO-252	2500

MAXIMUM RATINGS(Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{DS}	Drain-Source Voltage	500	V
V_{GS}	Gate-Source Voltage	±30	V
I_D	Continuous Drain Current	7.0	A
I_{DM}	Pulsed Drain Current	28	A
E_{AS}	Single Pulsed Avalanche Energy	247	mJ
P_D	Power Dissipation	32.9	W
T_j	Junction Temperature	-55 to 150	°C
T_{stg}	Storage Temperature		
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	62.5	°C/W
$R_{\theta JC}$	Thermal Resistance From Junction To Case	2.6	°C/W

**7N50*****N-Channel Mode Power MOSFET*****MOSFET ELECTRICAL CHARACTERISTICS(Ta=25°C unless otherwise specified)**

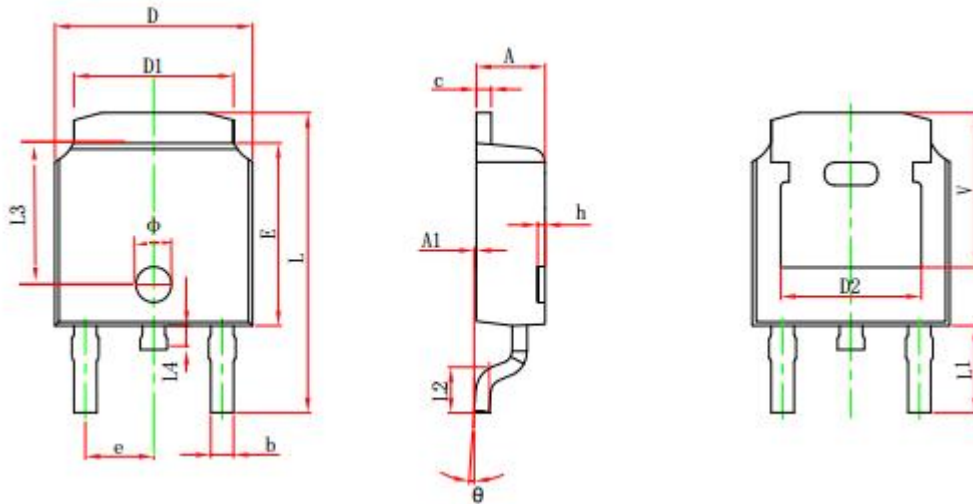
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Off characteristics						
Drain-Source breakdown Voltage	V(BR)DSS	VGS=0V, ID=250μA	500			V
Drain-Source diode forward Voltage	VSD	VGS=0V, IS=7.0A			1.5	V
Zero gate voltage drain current	IDSS	VDS=500V, VGS=0V			1	μA
Gate-body leakage current	IGSS	VDS=0V, VGS=±30V			±100	nA
On characteristics						
Gate-threshold voltage	VGS(th)	VDS=VGS, ID=250μA	2.0		4.0	V
Non-triggering gate voltage	RDS(on)	VGS=10V, ID=1.0A			0.9	Ω



7N50

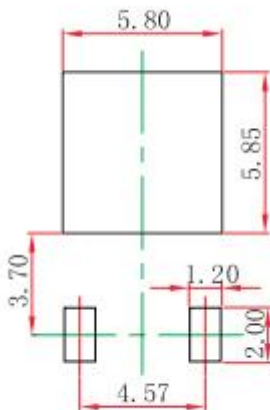
N-Channel Mode Power MOSFET

TO-252-2L Package Outline Dimensions



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	2.200	2.400	0.087	0.094
A1	0.000	0.127	0.000	0.005
b	0.635	0.770	0.025	0.030
c	0.460	0.580	0.018	0.023
D	6.500	6.700	0.256	0.264
D1	5.100	5.460	0.201	0.215
D2	4.830 REF.		0.190 REF.	
E	6.000	6.200	0.236	0.244
e	2.186	2.386	0.086	0.094
L	9.712	10.312	0.382	0.406
L1	2.900 REF.		0.114 REF.	
L2	1.400	1.700	0.055	0.067
L3	4.460 REF.		0.1756 REF.	
L4	0.600	1.000	0.024	0.039
φ	1.100	1.300	0.043	0.051
θ	0°	8°	0°	8°
h	0.000	0.300	0.000	0.012
V	5.250 REF.		0.207 REF.	

TO-252-2L Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.



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