



2N7002KCX

N-Channel Enhancement Mode Field Effect Transistor

Product Summary

V_{DS}	60V
I_D	300mA
$R_{DS(ON)}$ (at $V_{GS}=10V$)	2.5ohm
$R_{DS(ON)}$ (at $V_{GS}=4.5V$)	3.0ohm
Gate-Source ESD Rating Up to 2KV (HBM)	

General Description

Trench Power MV MOSFET technology
Voltage controlled small signal switch
Low input Capacitance
Fast Switching Speed
Low Input / Output Leakage
Moisture Sensitivity Level 1
Epoxy Meets UL 94 V-0 Flammability Rating
Halogen Free

Applications

DC/DC Converter
Load Switch for Portable Devices

Absolute Maximum Ratings ($T_A=25$ unless otherwise noted)

Parameter		Symbol	Limit	Unit
Drain-source Voltage		V_{DS}	60	V
Gate-source Voltage		V_{GS}	± 20	V
Drain Current	$T_A=25$ @ Steady State	I_D	300	mA
	$T_A=70$ @ Steady State		240	
Pulsed Drain Current ^A		I_{DM}	1.5	A
Total Power Dissipation @ $T_A=25$		P_D	250	mW
Thermal Resistance Junction-to-Ambient @ Steady State ^B		R_{JA}	500	/ W
Junction and Storage Temperature Range		T_J, T_{STG}	-55 +150	

Ordering Information (Example)

PREFERRED P/N	PACKING CODE	Marking	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON
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v 7 \ S L F D O 3 H U I R U P D Q F H & K D U D F W H U L V W L F V

) L J X U H 2 X W S X W & K D U D F W H U L V W L F V

) Q V X W H H & K D W D F W H U L V W

) L J X U H & D S D F L W D Q F H & K D U D F W H U L V W L F V

) L J X U H * D W H & K D U

) L J X U H ' U D L Q 6 R X U F H R Q 5 H V L V W D Q F H) L J X U H

' U D L Q 6 R X U F H R Q 5



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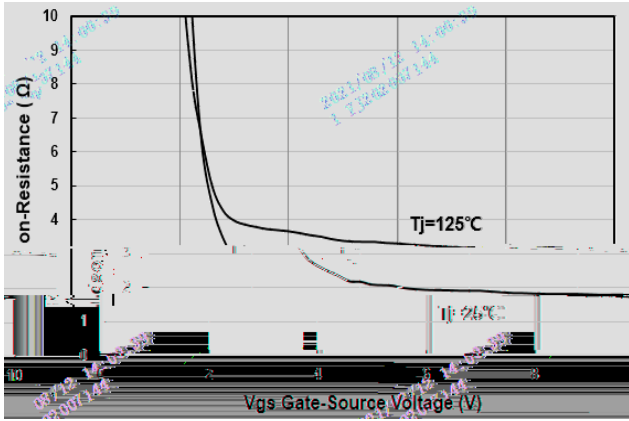


Figure7. On-Resistance vs V_{GS}

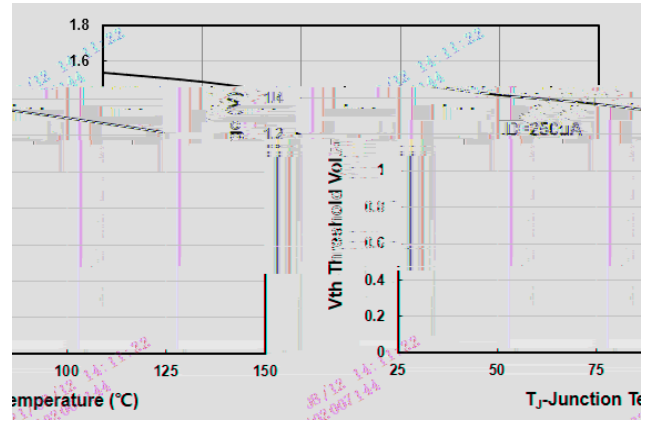


Figure8. Threshold Voltage vs Temperature

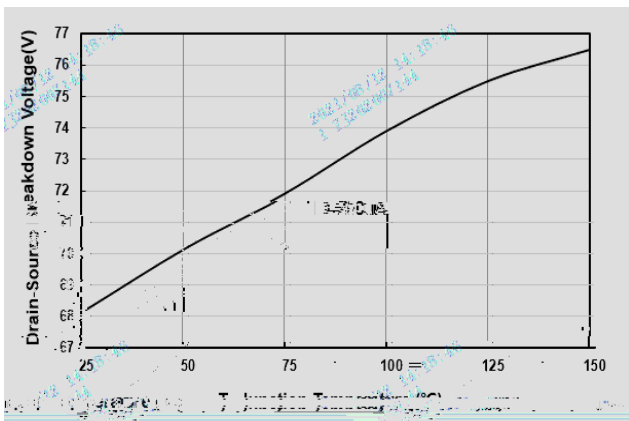


Figure9. Breakdown Voltage vs Temperature

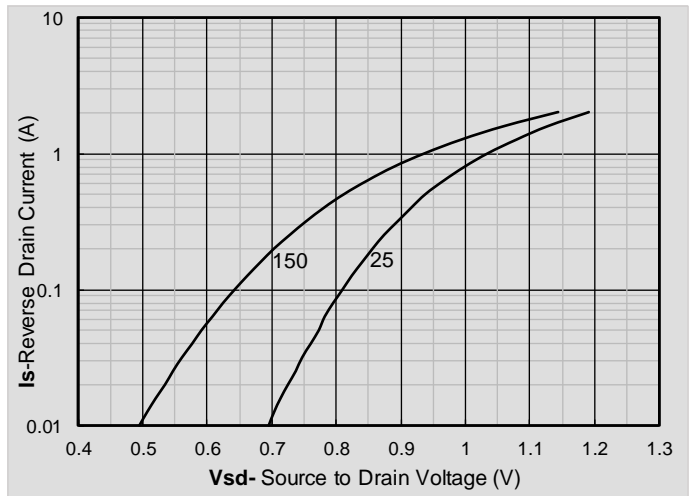


Figure 10. Forward characteristics of reverse diode

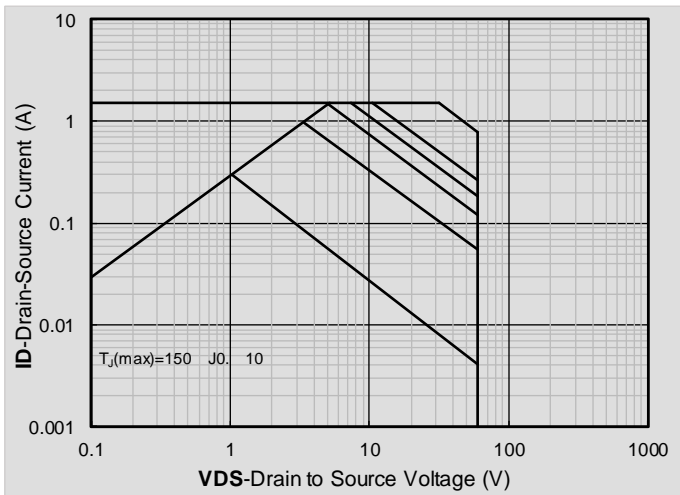


Figure 11. Safe Operation Area

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Disclaimer

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