



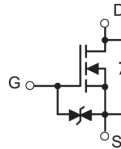
Micro Commercial Components

Micro Commercial Components
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2N7002KM

Features

- Epoxy meets UL 94 V-0 flammability rating
- Moisture Sensitivity Level 1
- High density cell design for low $R_{DS(ON)}$
- Voltage controlled small signal switch
- Rugged and reliable
- ESD Protected up to 2.5KV (HBM)
- Halogen free available upon request by adding suffix "-HF"



N-Channel MOSFET

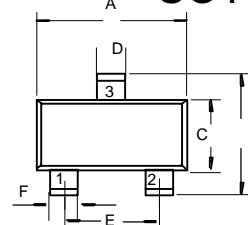
Maximum Ratings @ 25°C Unless Otherwise Specified

Symbol	Rating	Rating	Unit
V_{DS}	Drain-source Voltage	60	V
V_{GS}	Gate-source Voltage	± 20	V
I_D	Drain Current	340	mA
P_D	Total Power Dissipation	150	mW
T_J	Operating Junction Temperature	-55 to +150	°C
T_{STG}	Storage Temperature	-55 to +150	°C
R_{thJA}	Thermal Resistance from Junction to Ambient	833	°C/W

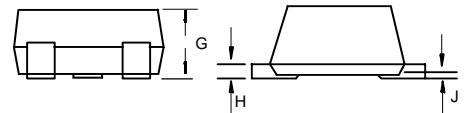
Electrical Characteristics @ 25°C Unless Otherwise Specified

Symbol	Parameter	Min	Typ	Max	Units	
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage ($V_{GS}=0Vdc, I_D=250\mu A$)	60	---	---	Vdc	
$V_{GS(th)}$	Gate-Threshold Voltage ($V_{DS}=V_{GS}, I_D=0.25mA$)	1.0	1.4	2.5	Vdc	
I_{GSS}	Gate-body Leakage ($V_{GS}=\pm 20V, V_{DS}=0V$) ($V_{GS}=\pm 10V, V_{DS}=0V$) ($V_{GS}=\pm 5V, V_{DS}=0V$)	---	---	± 10 ± 200 ± 100	nAdc	
I_{DSS}	Zero Gate Voltage Drain Current ($V_{DS}=48Vdc, V_{GS}=0Vdc$)	---	---	1	μA dc	
$r_{DS(on)}$	Drain-Source On-Resistance ($V_{GS}=4.5Vdc, I_D=200mA$) ($V_{GS}=10Vdc, I_D=500mA$)	---	1.4 1.3	4.5 4.0	Ω	
V_{SD}	Diode Forward Voltage ($V_{GS}=0Vdc, I_S=300mA$)	---	0.97	1.5	Vdc	
Q_r	Recovered charge ($V_{GS}=0V, I_S=300mA, V_R=25V,$) ($di_s/dt=-100A/\mu S$)	---	30	---	nC	
C_{iss}	Input Capacitance	$V_{DS}=10Vdc,$ $V_{GS}=0Vdc$ $f=1MHz$	---	---	40	pF
C_{oss}	Output Capacitance		---	---	30	
C_{rSS}	Reverse Transfer Capacitance		---	---	10	
$t_{d(on)}$	Turn-on Time	$V_{DD}=50V, R_L=250\Omega,$ $R_{GS}=50\Omega, V_{GS}=10V,$ $R_G=50\Omega$	---	---	10	ns
$t_{d(off)}$	Turn-off Time		---	---	15	
t_{rr}	Reverse recovery time		$V_{GS}=0V, I_S=300mA,$ $V_R=25V,$ $di_s/dt=-100A/\mu S$	---	30	

SOT-723

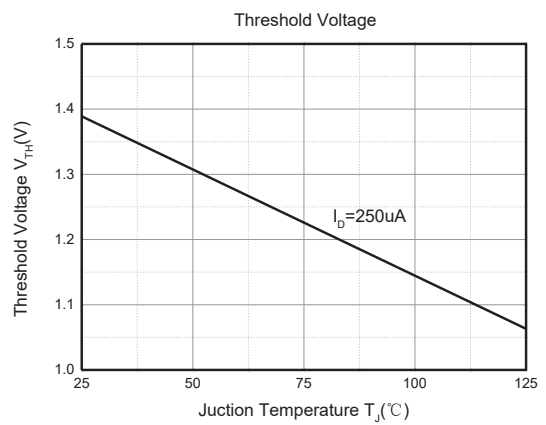
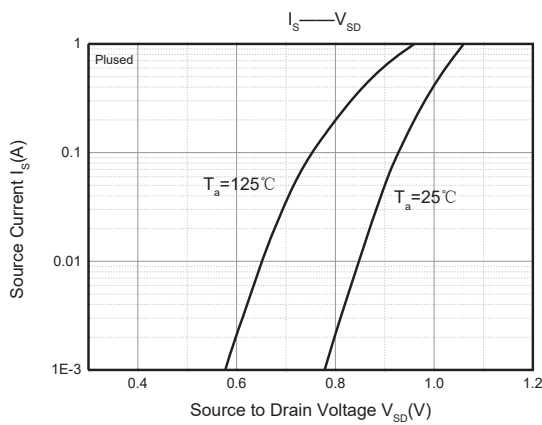
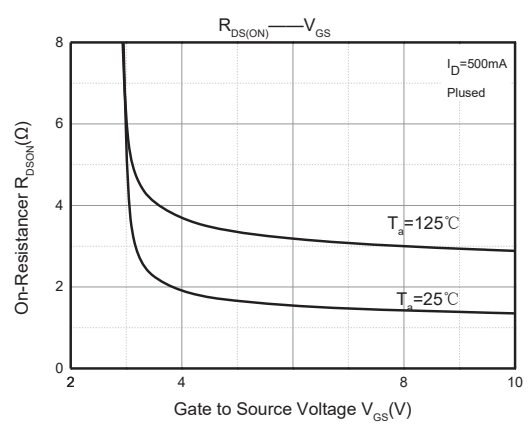
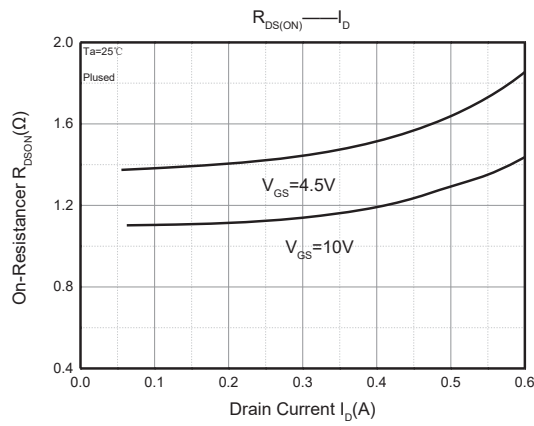
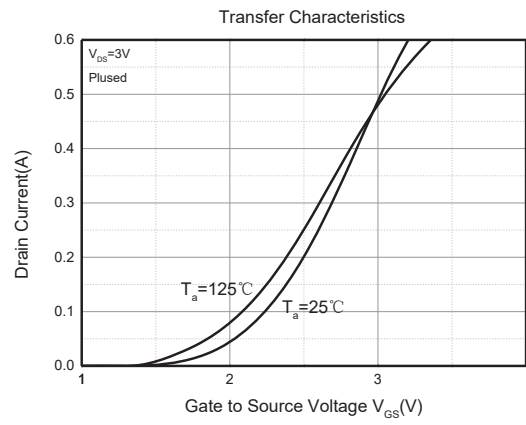
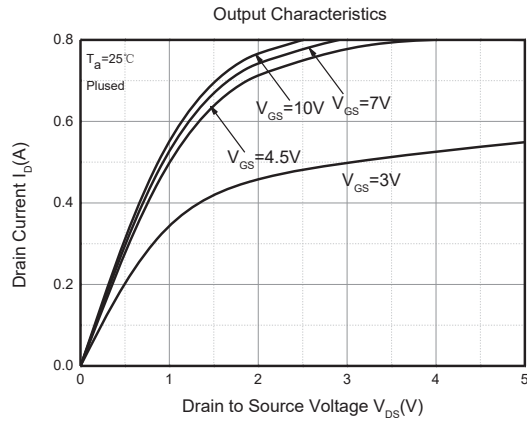


1. GATE
2. SOURCE
3. DRAIN



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.045	.049	1.15	1.25	
B	.045	.049	1.15	1.25	
C	.030	.033	0.75	0.85	
D	.011	.015	0.27	0.37	
E	0.031TYP.		0.80TYP.		
F	.007	.011	0.17	0.27	
G	.017	.020	0.43	0.50	
H	.003	.006	0.08	0.15	
J	.000	.002	0.00	0.05	

Typical Characteristics





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Ordering Information :

Device	Packing
Part Number-TP	Tape&Reel: 8Kpcs/Reel

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF

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