

### Features

- High Density Cell Design For Low  $R_{DS(ON)}$
- Voltage Controlled Small Signal Switch
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. "Green" Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

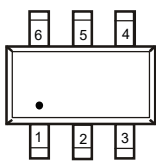
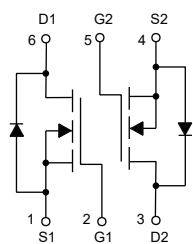
### Maximum Ratings

- Operating Junction Temperature Range:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Storage Temperature Range:  $-55^{\circ}\text{C}$  to  $+150^{\circ}\text{C}$
- Thermal Resistance:  $833^{\circ}\text{C/W}$  Junction to Ambient

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	$V_{DS}$	60	V
Gate-Source Voltage	$V_{GS}$	$\pm 20$	V
Drain Current	$I_D$	340	mA
Total Power Dissipation	$P_D$	150	mW

Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

### Circuit and Pin Schematic

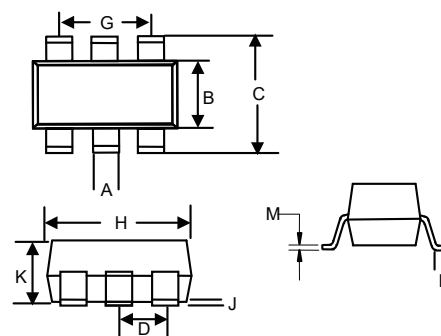


Dot Denotes Pin1

Marking:K72

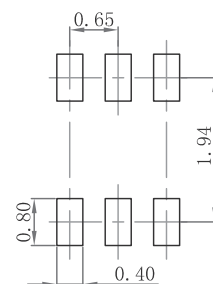
# DUAL N-CANNEL MOSFET

## SOT-363



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.006	0.014	0.15	0.35	
B	0.045	0.053	1.15	1.35	
C	0.079	0.096	2.00	2.45	
D	0.026		0.65		TYP.
G	0.047	0.055	1.20	1.40	
H	0.071	0.087	1.80	2.20	
J	-----	0.004	-----	0.10	
K	0.031	0.043	0.80	1.10	
L	0.010	0.018	0.26	0.46	
M	0.003	0.006	0.08	0.15	

### SUGGESTED SOLDER PAD LAYOUT



**ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)**

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	60			V
Gate-Threshold Voltage <sup>(2)</sup>	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.0		2.5	V
Gate-Body Leakage	$I_{GSS}$	$V_{DS}=0V, V_{GS}=\pm 20V$			±10	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS}=60V, V_{GS}=0V$			80	
Drain-Source On-Resistance <sup>(2)</sup>	$R_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			7	Ω
		$V_{GS}=5V, I_D=50mA$			7	
Drain-Source On-Voltage <sup>(2)</sup>	$V_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			3.75	V
		$V_{GS}=5V, I_D=50mA$			0.375	
Forward Transconductance <sup>(2)</sup>	$g_{fs}$	$V_{DS}=10V, I_D=200mA$	80			ms
Diode Forward Voltage	$V_{SD}$	$V_{GS}=0V, I_S=115mA$	0.55		1.2	V
Input Capacitance <sup>(3)</sup>	$C_{iss}$	$V_{DS}=25V, V_{GS}=0V, f=1MHz$			50	pF
Output Capacitance <sup>(3)</sup>	$C_{oss}$				25	
Reverse Transfer Capacitance <sup>(3)</sup>	$C_{rss}$				5	
Turn-On Time <sup>(3)</sup>	$t_{d(on)}$	$V_{DD}=25V, V_{GEN}=10V, R_L=50\Omega, I_D=500mA, R_{GEN}=25\Omega$			20	ns
Turn-Off Time <sup>(3)</sup>	$t_{d(off)}$				40	

Note: 2. Pulse Test: Pulse Width  $\leq 300\mu s$ , Duty Cycle  $\leq 2\%$ .

3. These Parameters Have No Way to Verify.

**Curve Characteristics**

Fig. 1 - Output Characteristics

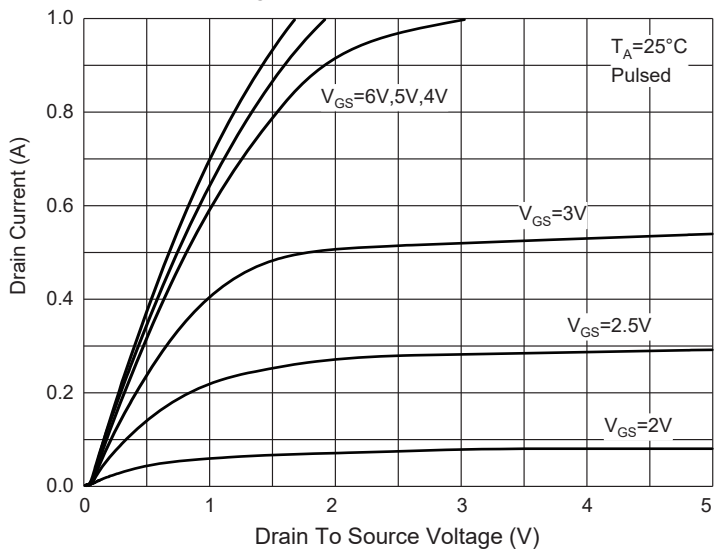


Fig. 2 - Transfer Characteristics

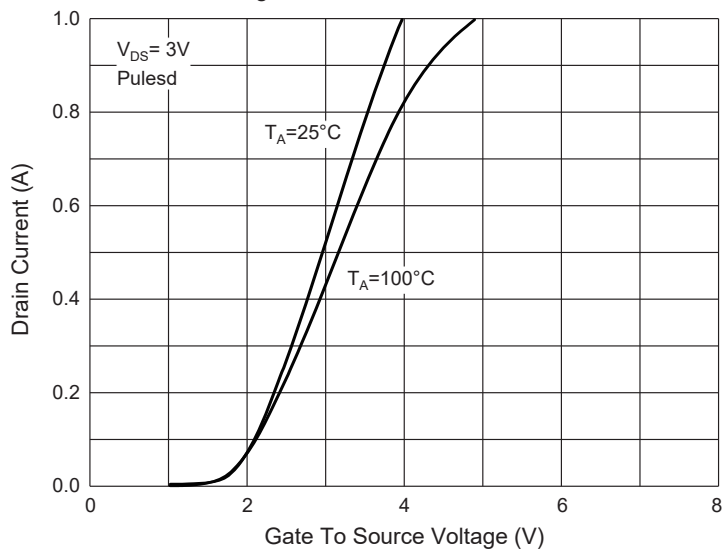


Fig. 3 -  $R_{DS(ON)} - I_D$

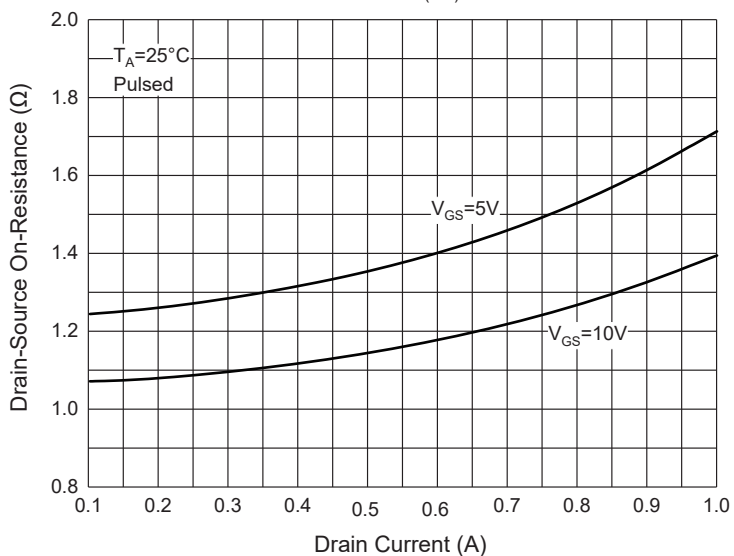


Fig. 4 -  $R_{DS(ON)} - V_{GS}$

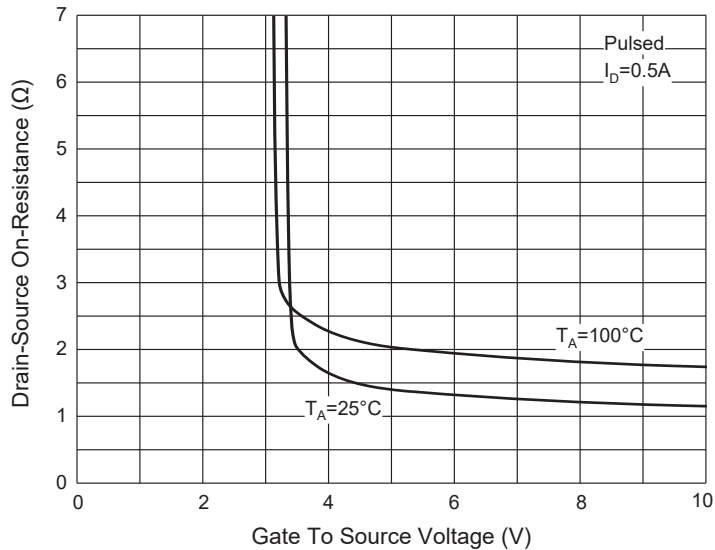


Fig. 5 -  $I_S - V_{SD}$

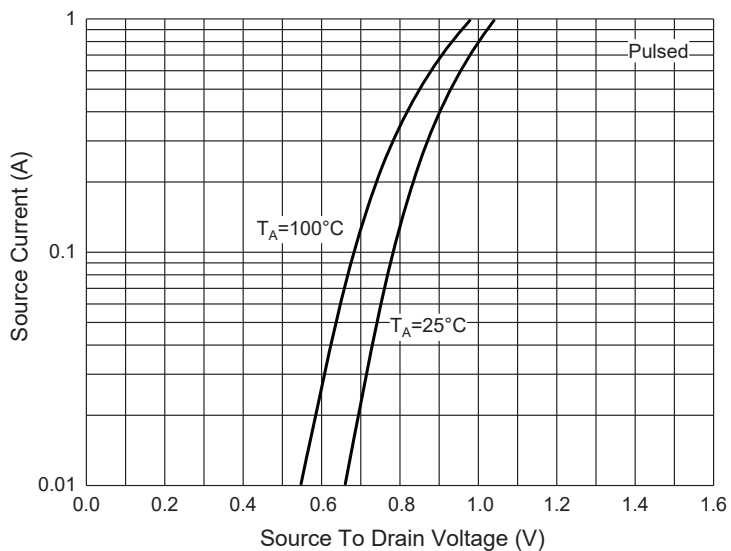
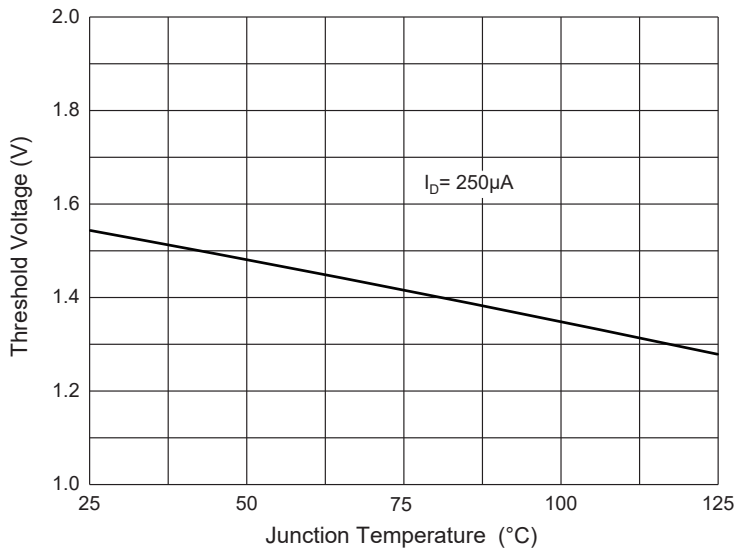


Fig. 6 - Threshold Voltage



## Ordering Information

Device	Packing
Part Number-TP	Tape&Reel:3Kpcs/Reel

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