

Features

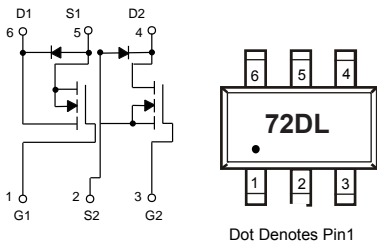
- High Density Cell Design For Low $R_{DS(ON)}$
- Voltage Controlled Small Signal Switch
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See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

Maximum Ratings

- Operating Junction Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Thermal Resistance: 277°C/W Junction to Ambient

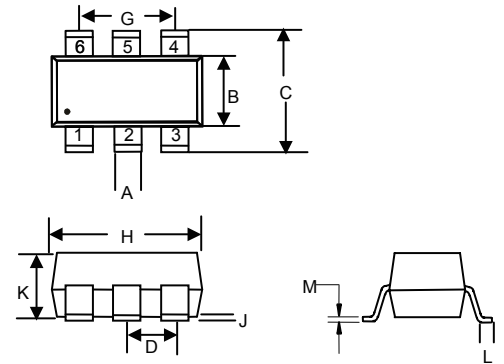
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current	I_D	115	mA
Total Power Dissipation	P_D	225	mW

Circuit and Pin Schematic



DUAL N-CANNEL MOSFET

SOT23-6L



DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D	0.037		0.95		TYP.
G	0.074		1.90		TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	60			V
Gate-Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	1.0	1.4	2.5	V
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$			± 1	μA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=60V, V_{GS}=0V$			100	nA
On-State Drain Current	$I_{D(on)}$	$V_{DS}=7.0V, V_{GS}=10V$	500			mA
Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			4.5	Ω
		$V_{GS}=5.0V, I_D=50mA$			5.0	
On-State Drain-Source Voltage	$V_{DS(on)}$	$V_{GS}=10V, I_D=500mA$			3.0	V
		$V_{GS}=5V, I_D=50mA$			0.375	
Dynami Characteristics						
Input Capacitance ⁽¹⁾	C_{iss}	$V_{DS}=25V, V_{GS}=0V, f=1MHz$		10.1	50	pF
Output Capacitance ⁽¹⁾	C_{oss}			4.2	25	
Reverse Transfer Capacitance ⁽¹⁾	C_{rss}			1.9	5	
Switching Characteristics						
Turn-On Delay Time ⁽¹⁾	$t_{d(on)}$	$V_{DD}=10V, V_{GEN}=10V, R_L=20\Omega$ $, I_D=500mA, R_{GEN}=10\Omega$		5.6		ns
Turn-Off Delay Time ⁽¹⁾	$t_{d(off)}$			25		
Source-Drain Diode Characteristics						
Diode Forward Voltage	V_{SD}	$V_{GS}=0V, I_S=150mA$	0.6	0.82	1.0	V
Source Current Continuous	I_S				115	mA

Note: 1. These Parameters Have No Way to Verify.

Curve Characteristics

Fig. 1 - Output Characteristics

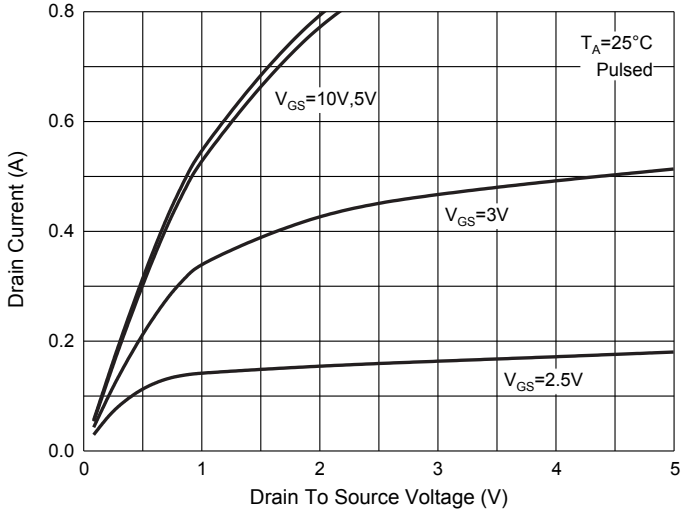


Fig. 2 - Transfer Characteristics

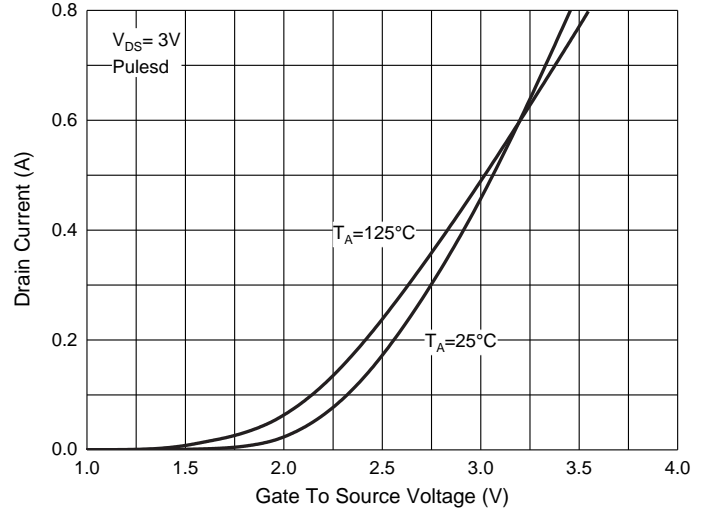


Fig. 3 - $R_{DS(ON)} - I_D$

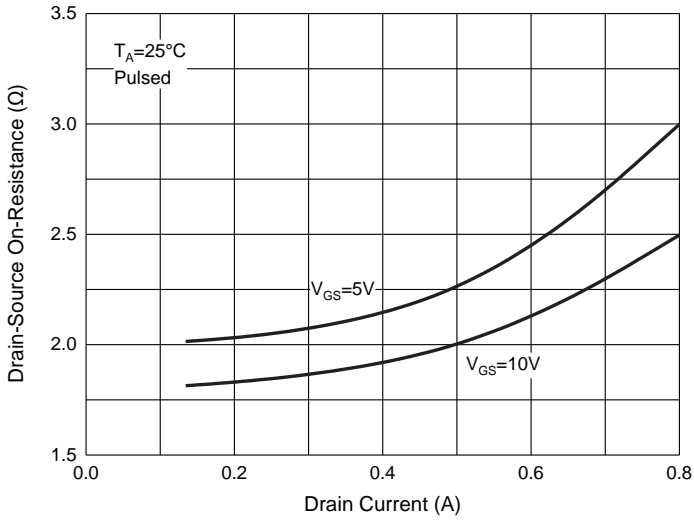


Fig. 4 - $R_{DS(ON)} - V_{GS}$

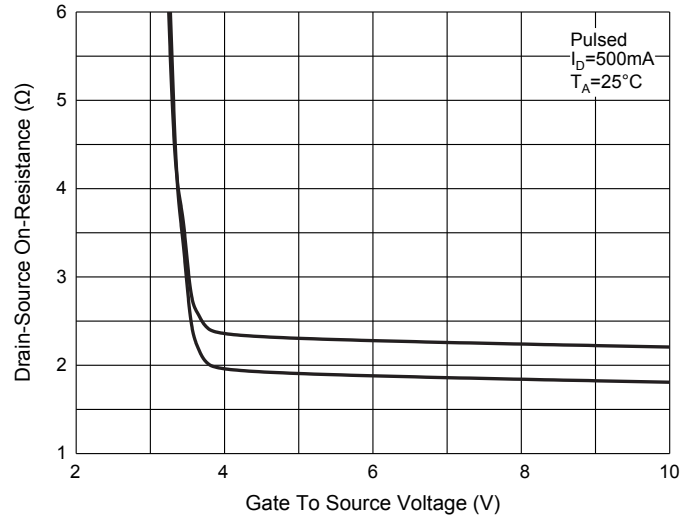


Fig. 5 - $I_S - V_{SD}$

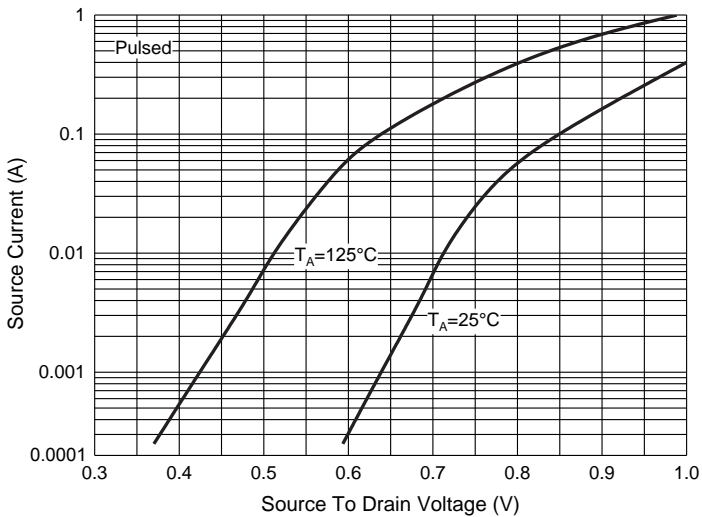
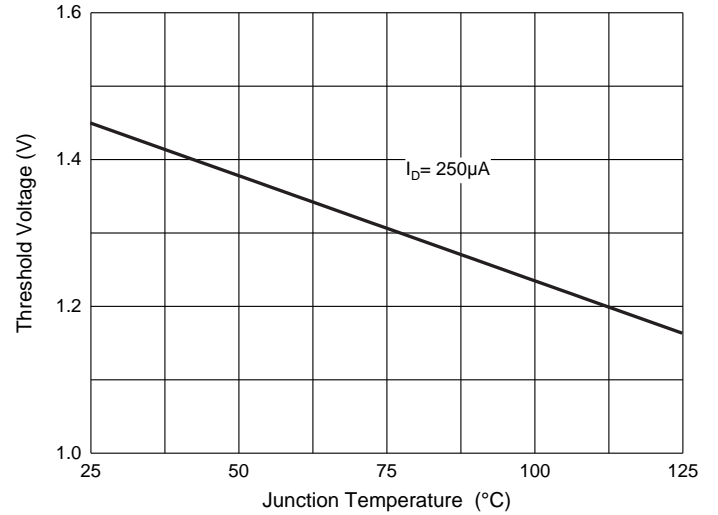


Fig. 6 - Threshold Voltage



Ordering Information

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

Note : Adding "-HF" Suffix For Halogen Free, eg. Part Number-TP-HF

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