

Features

- High Density Cell Design For Low $R_{DS(ON)}$
- Voltage Controlled Small Signal Switch
- High Saturation Current Capability
- 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)

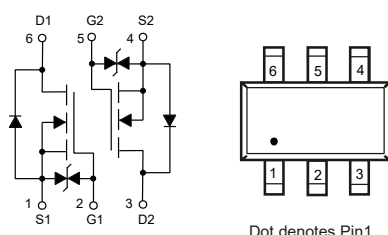
Maximum Ratings

- Operating Junction Temperature Range: -55°C to $+150^{\circ}\text{C}$
- Storage Temperature: -55°C to $+150^{\circ}\text{C}$
- Thermal Resistance: 833°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	340	mA
Total Power Dissipation	P_D	150	mW

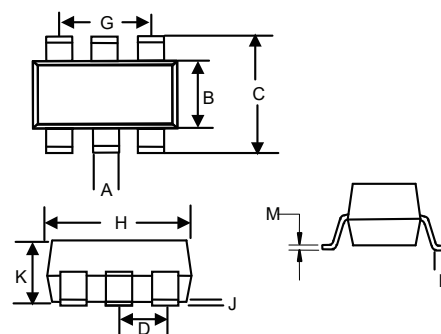
Note: 1. Halogen free "Green" products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

Circuit and Pin Schematic



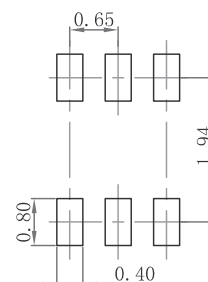
DUAL N-CHANNEL MOSFET

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
Static Characteristics						
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =250μA	60			V
Gate-Threshold Voltage ⁽²⁾	V _{GS(th)}	V _{DS} =V _{GS} , I _D =1mA	1.0		2.5	V
Gate-Body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±20V			±10	μA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =48V, V _{GS} =0V			1	μA
Drain-Source On-Resistance ⁽²⁾	R _{DS(on)}	V _{GS} =10V, I _D =500mA			5	Ω
		V _{GS} =4.5V, I _D =200mA			5.3	
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =300mA			1.5	V
Recovered Charge	Q _r	V _{GS} =0V, I _S =300mA,V _R =25V, dIs/dt=-100A/μs		30		nC
Dynami Characteristics ⁽³⁾						
Input Capacitance	C _{iss}	V _{DS} =10V,V _{GS} =0V, f=1MHz			40	pF
Output Capacitance	C _{oss}				30	
Reverse Transfer Capacitance	C _{rss}				10	
Switching Characteristics ⁽³⁾						
Turn-On Delay Time	t _{d(on)}	V _{DD} =50V,V _{GS} =10V,R _L =250Ω, R _{GS} =50Ω,R _{GEN} =50Ω			10	ns
Turn-Off Delay Time	t _{d(off)}				15	
Reverse Recovery Time	t _{rr}	V _{GS} =0V,I _S =300mA, V _R =25V, dIs/dt=-100A/μs		30		
Gate-Source Zener Diode						
Gate-Source Breakdown Voltage	BV _{GSO}	I _{gs} =±1mA(Oper Drain)	±21.5		±30	V

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

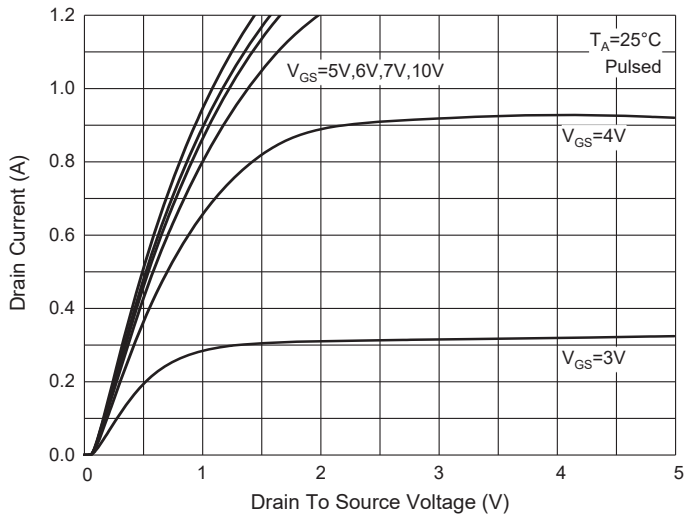


Fig. 2 - Transfer Characteristics

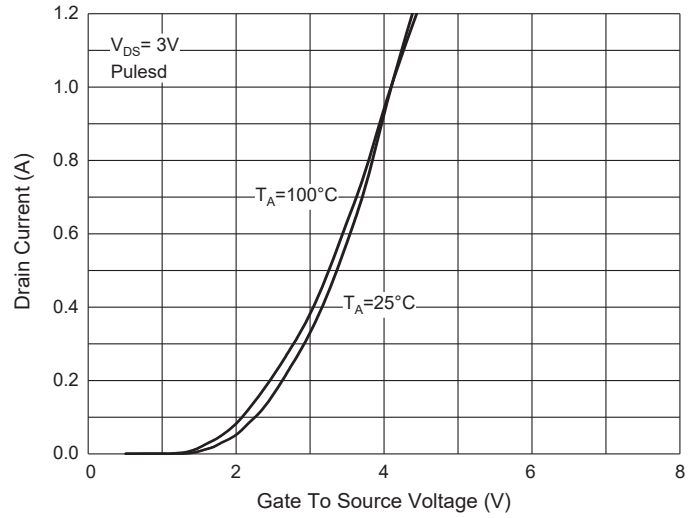


Fig. 3 - $R_{DS(ON)} - I_D$

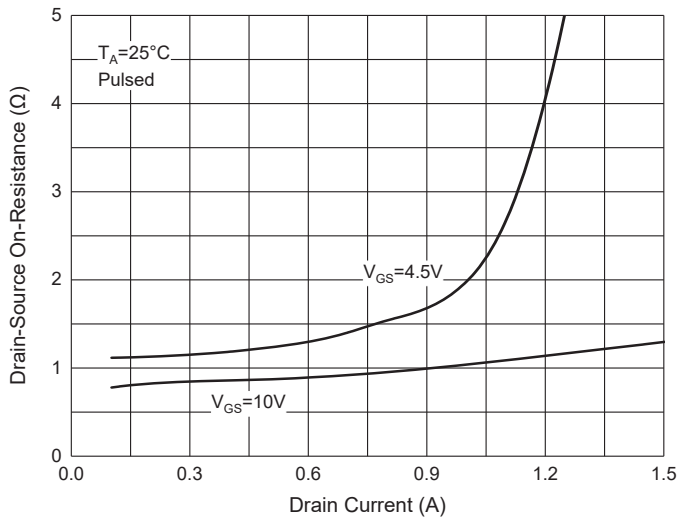


Fig. 4 - $R_{DS(ON)} - V_{GS}$

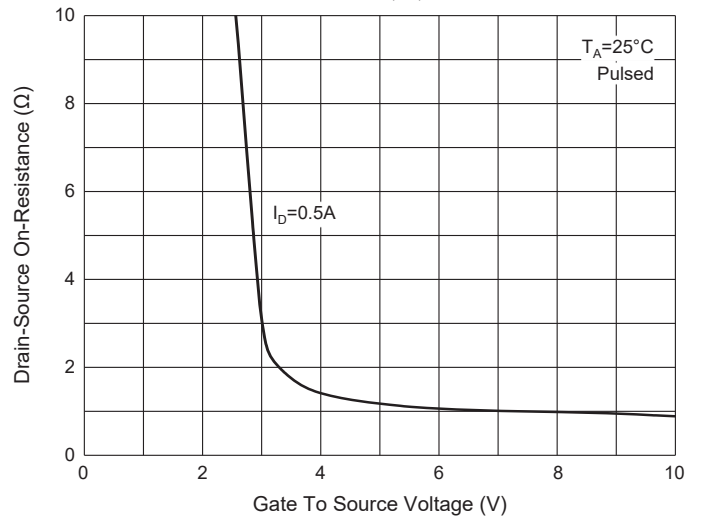


Fig. 5 - $I_S - V_{SD}$

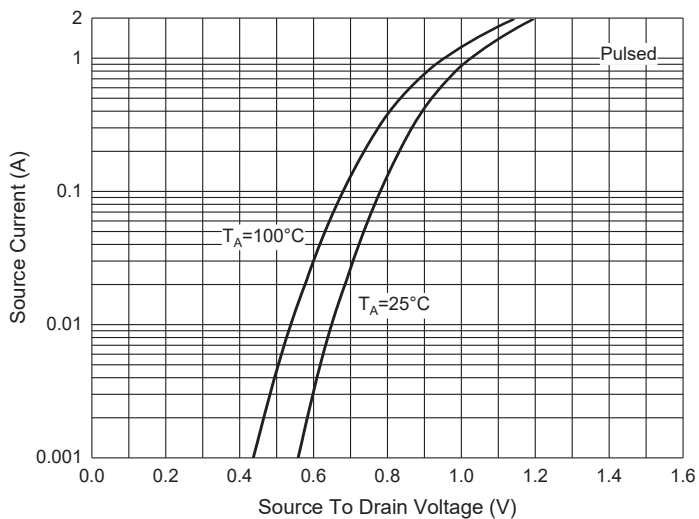
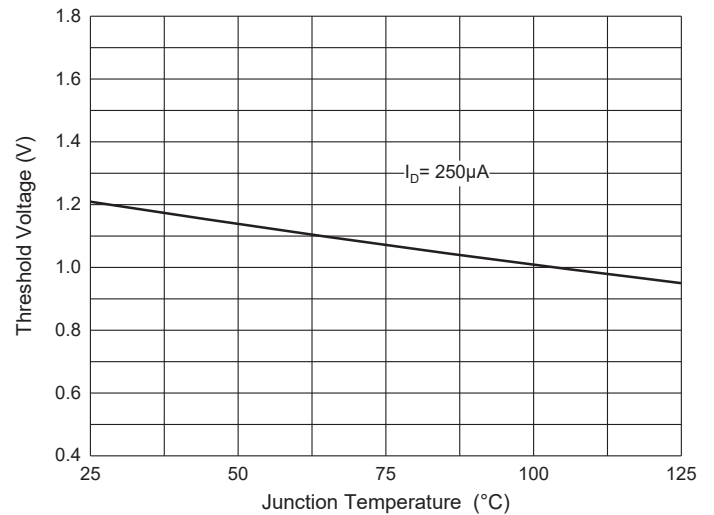


Fig. 6 - Threshold Voltage



Ordering Information

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

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