

Features

- High Density Cell Design for Low $R_{DS(ON)}$
- Voltage Controlled Small Signal Switch
- ESD Protected up to 2KV (HBM)
- 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)

N-Channel MOSFET

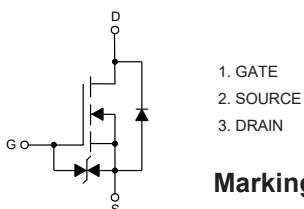
Maximum Ratings

- Operating Junction Temperature Range: -55°C to +150°C
- Storage Temperature: -55°C to +150°C
- Thermal Resistance: 357°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-Continuous	I_D	0.34	A
Power Dissipation	P_D	0.35	W

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

Internal Structure



Marking: 72K

SOT-23

DIMENSIONS

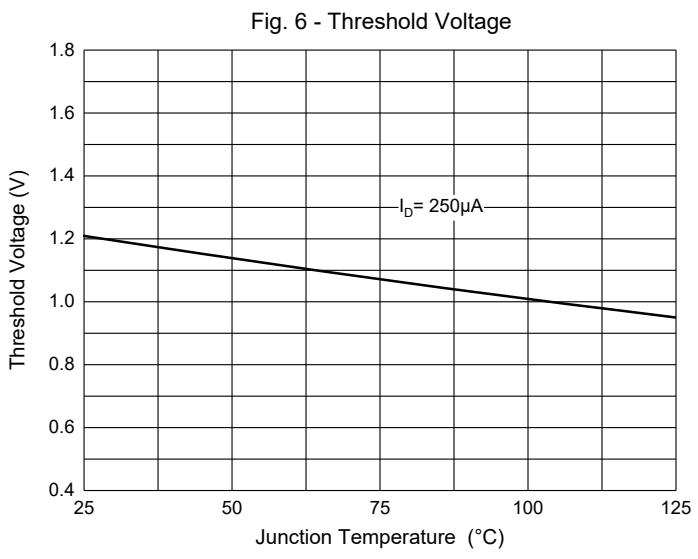
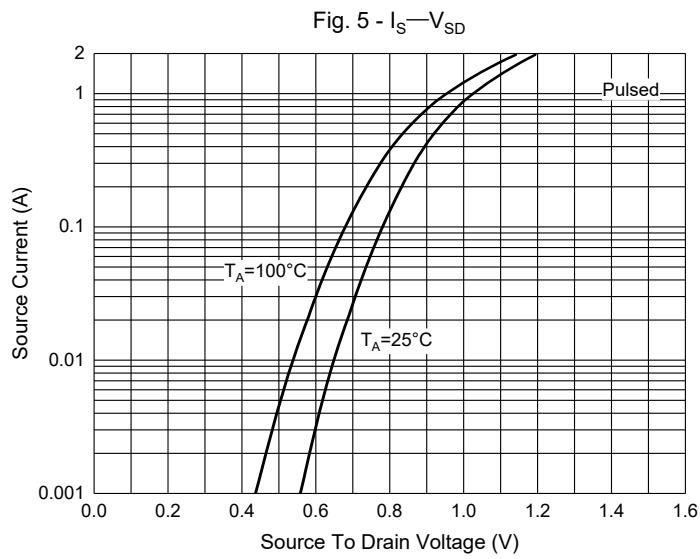
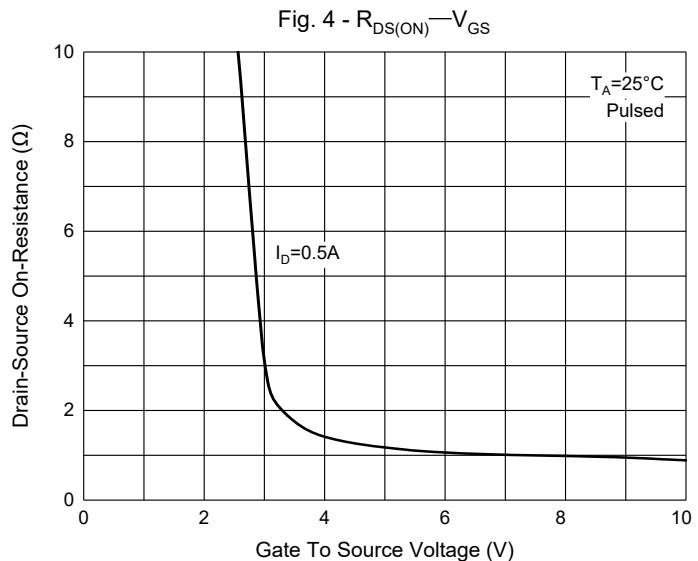
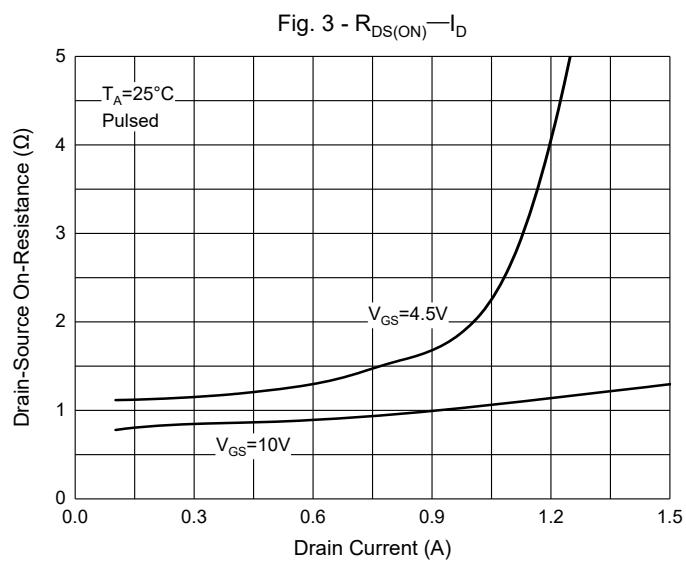
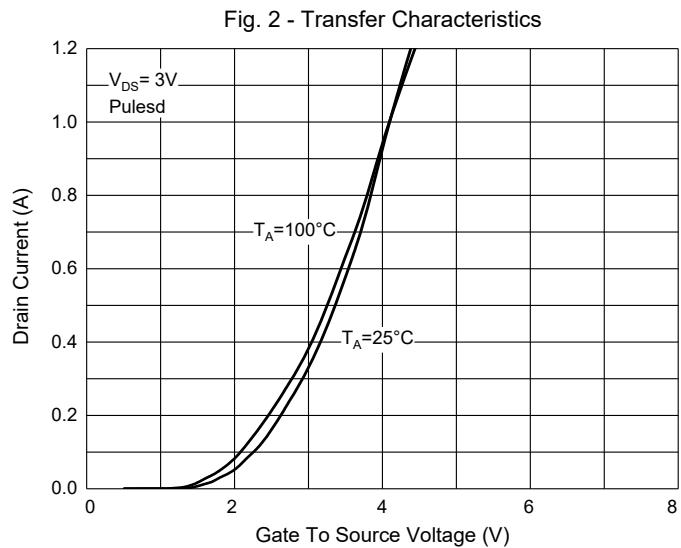
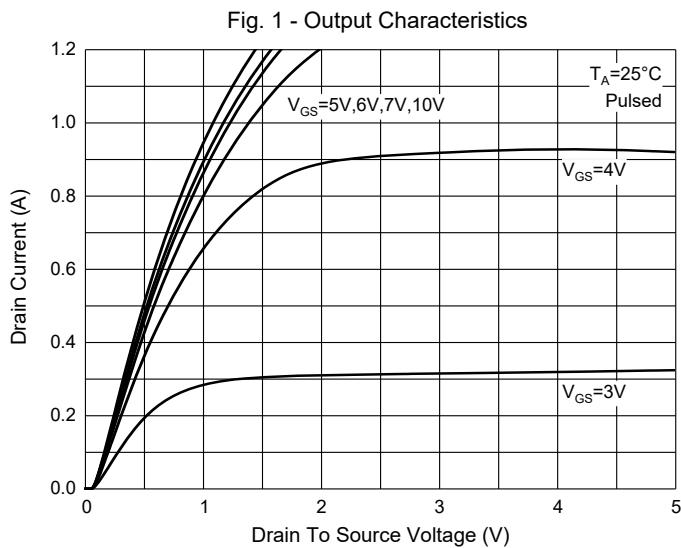
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.110	0.120	2.80	3.04	
B	0.083	0.104	2.10	2.64	
C	0.047	0.055	1.20	1.40	
D	0.034	0.041	0.85	1.05	
E	0.067	0.083	1.70	2.10	
F	0.018	0.024	0.45	0.60	
G	0.0004	0.006	0.01	0.15	
H	0.035	0.043	0.90	1.10	
J	0.003	0.007	0.08	0.18	
K	0.012	0.020	0.30	0.51	
L	0.007	0.020	0.20	0.50	

Suggested Solder Pad Layout

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

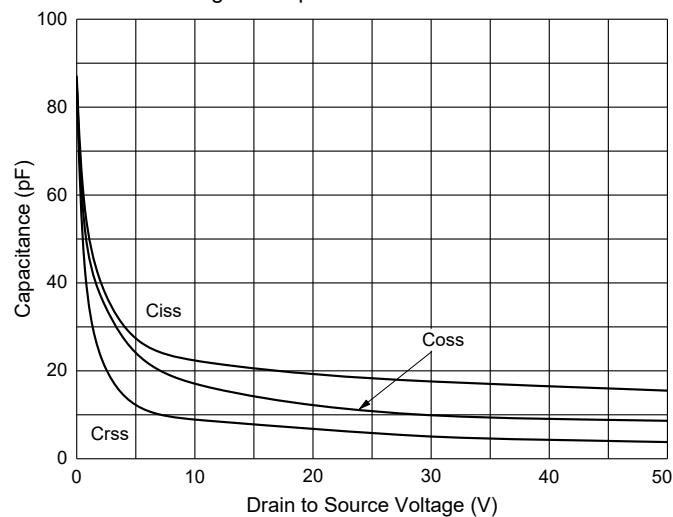
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	V _{(BR)DSS}	V _{GS} =0V, I _D =0μA	60			V
Gate-Threshold Voltage	V _{GS(th)}	V _{DS} =V _{GS} , I _D =0μA	1.0	1.3	2.5	V
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =48V, V _{GS} =0V			1.0	μA
Gate-Body Leakage	I _{GSS}	V _{DS} =0V, V _{GS} =±10V			±10	μA
		V _{DS} =0V, V _{GS} =±10V			±200	nA
		V _{DS} =0V, V _{GS} =±5V			±100	nA
Diode Forward Voltage	V _{SD}	V _{GS} =0V, I _S =300mA			1.5	V
Drain-Source On-Resistance	R _{DS(on)}	V _{GS} =10V, I _D =500mA			2.5	Ω
		V _{GS} =4.5V, I _D =200mA			3.0	
Recovered Charge	Q _r	V _{GS} =0V, I _S =300mA, V _R =25V, dI/dt=-100A/μs		30		nC
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	
Turn-On Time	t _{d(on)}	V _{DD} =50V, R _L =250Ω, R _{GS} =50Ω, V _{GS} =10V, R _{GEN} =50Ω			10	ns
Turn-Off Time	t _{d(off)}				15	
Reverse Recovery Time	t _{rr}	V _{GS} =0V, I _S =300mA, V _R =25V, dI/dt=-100A/μs		30		

Curve Characteristics



Curve Characteristics

Fig. 7 - Capacitance Characteristics



Ordering Information

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

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