

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=250\mu A$	30			V
Gate-Threshold Voltage ^(Note 4)	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	0.7		1.2	V
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 12V, V_{DS}=0V$			± 100	nA
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=24V, V_{GS}=0V$			1	μA
Drain-Source On-Resistance ^(Note 4)	$R_{DS(on)}$	$V_{GS}=10V, I_D=5.8A$		21	27	m Ω
		$V_{GS}=4.5V, I_D=5.0A$		25	33	
		$V_{GS}=2.5V, I_D=4.0A$		33	51	
Forward Transconductance	g_{FS}	$V_{DS}=5V, I_D=5.0A$	8.0			S
Dynamic Characteristics^(Note 5)						
Input Capacitance	C_{iss}	$V_{DS}=15V, V_{GS}=0V, f=1MHz$			1155	pF
Output Capacitance	C_{oss}			108		
Reverse Transfer Capacitance	C_{rss}			84		
Gate Resistance	R_g	$V_{DS}=0V, V_{GS}=0V, f=1MHz$			3.6	Ω
Switching Characteristics^(Note 5)						
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V, R_L=2.7\Omega, V_{DS}=15V, R_{GEN}=3\Omega$			5	ns
Turn-On Rise Time	t_r				7	
Turn-Off Delay Time	$t_{d(off)}$				40	
Turn-Off Fall Time	t_f				6	
Drain-Source Diode Characteristics and Maximum Ratings						
Diode Forward voltage ^(Note 4)	V_{SD}	$V_{GS}=0V, I_S=1A$			1.0	V

Notes:

2. Repetitive Rating : Pulse width limited by maximum junction temperature.
3. Surface Mounted on FR4 Board, $t < 5$ sec.
4. Pulse Test: Pulse Width $\leq 300\mu A$, Duty Cycle $\leq 2\%$.
5. Guaranteed by Design, Not Subject to Production Testing.

Curve Characteristics

Fig. 1 - Output Characteristics

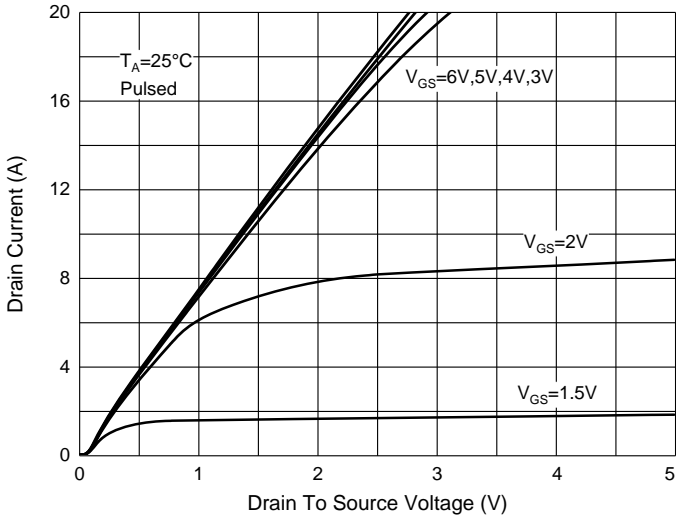


Fig. 2 - Transfer Characteristics

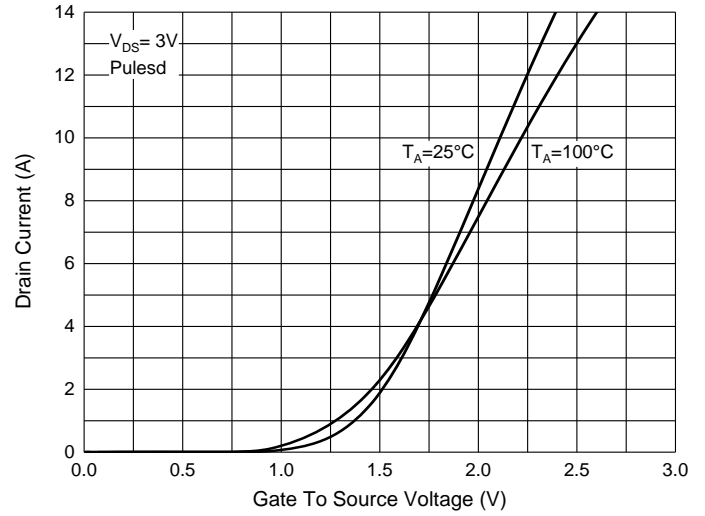


Fig. 3 - $R_{DS(ON)} - I_D$

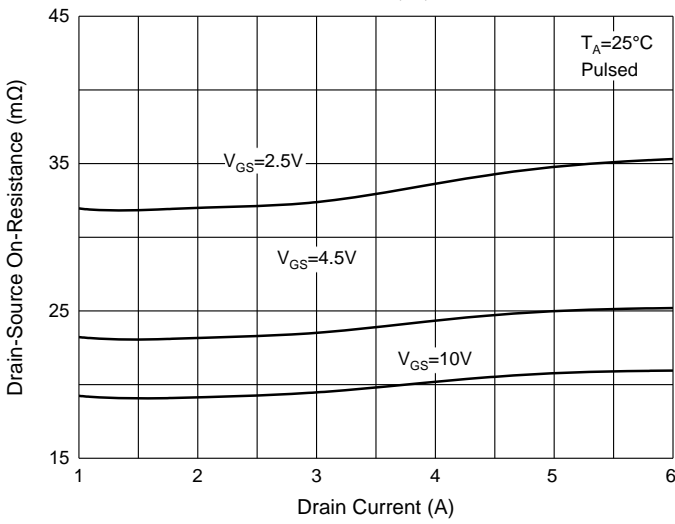


Fig. 4 - $R_{DS(ON)} - V_{GS}$

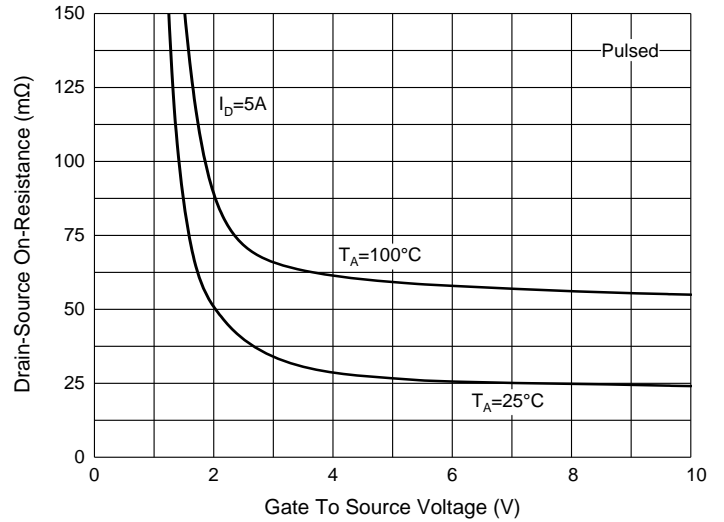


Fig. 5 - $I_S - V_{SD}$

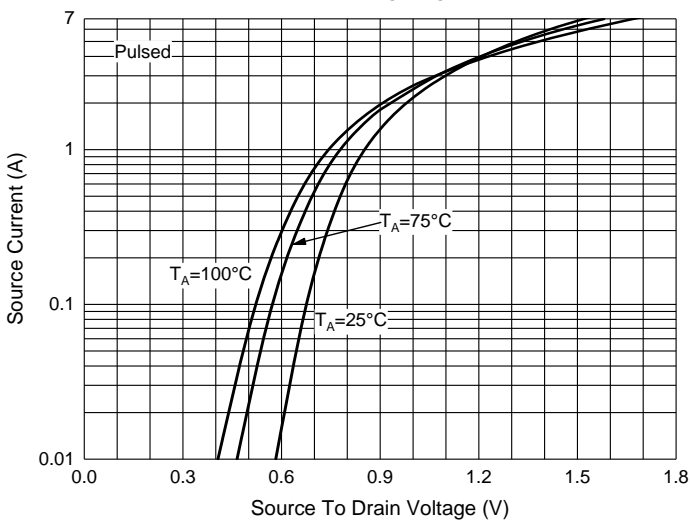
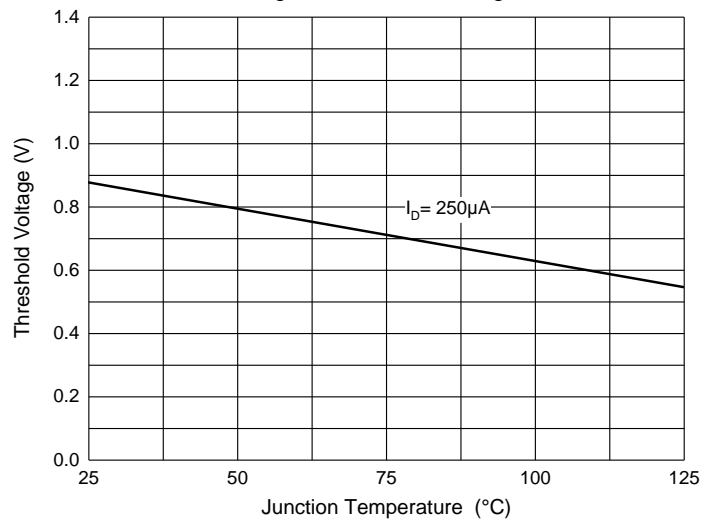


Fig. 6 - Threshold Voltage



Ordering Information

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

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