

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

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	V <sub>(BR)DSS</sub>	V <sub>GS</sub> =0V, I <sub>D</sub> =250μA	30			V
Gate-Threshold Voltage	V <sub>GS(th)</sub>	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =250μA	1.0		2.0	V
Gate-Body Leakage Current	I <sub>GSS</sub>	V <sub>GS</sub> =± 20V, V <sub>DS</sub> =0V			±100	nA
Zero Gate Voltage Drain Current	I <sub>DSS</sub>	V <sub>DS</sub> =30V, V <sub>GS</sub> =0V			1	μA
Drain-Source On-Resistance	R <sub>DS(on)</sub>	V <sub>GS</sub> =10V, I <sub>D</sub> =2.5A			65	mΩ
		V <sub>GS</sub> =4.5V, I <sub>D</sub> =2.0A			90	
Forward Transconductance	g <sub>FS</sub>	V <sub>DS</sub> =4.5V, I <sub>D</sub> =2.5A		4.6		S
Diode Forward Voltage <sup>(Note1)</sup>	V <sub>SD</sub>	V <sub>GS</sub> =0V, I <sub>S</sub> =1.25A			1.2	V
Dynamic Characteristics						
Input Capacitance	C <sub>iss</sub>	V <sub>DS</sub> =15V,V <sub>GS</sub> =0V, f=1MHz		240		pF
Output Capacitance	C <sub>oss</sub>			110		
Reverse Transfer Capacitance	C <sub>rss</sub>			17		
Switching Characteristics						
Total Gate Charge	Q <sub>g</sub>	V <sub>DS</sub> =15V,V <sub>GS</sub> =10V,I <sub>D</sub> =2.5A		4.5	10	nC
Gate-Source Charge	Q <sub>gs</sub>			0.8		
Gate-Drain Charge	Q <sub>gd</sub>			1.0		
Turn-On Delay Time	t <sub>d(on)</sub>	V <sub>DD</sub> =15V,R <sub>L</sub> =15Ω,V <sub>GEN</sub> =10V, I <sub>D</sub> =1A,R <sub>G</sub> =6Ω		8	20	ns
Turn-On Rise Time	t <sub>r</sub>			12	30	
Turn-Off Delay Time	t <sub>d(off)</sub>			17	35	
Turn-Off Fall Time	t <sub>f</sub>			8	20	

## Curve Characteristics

Fig. 1 - Output Characteristics

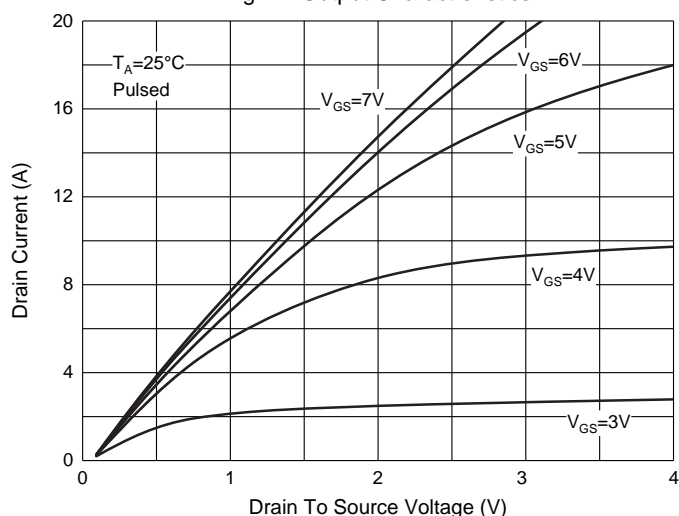


Fig. 2 - Transfer Characteristics

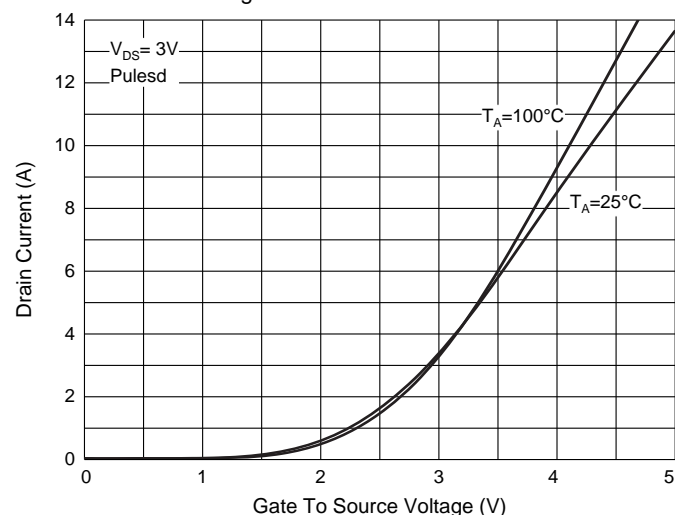


Fig. 3 -  $R_{DS(ON)} - I_D$

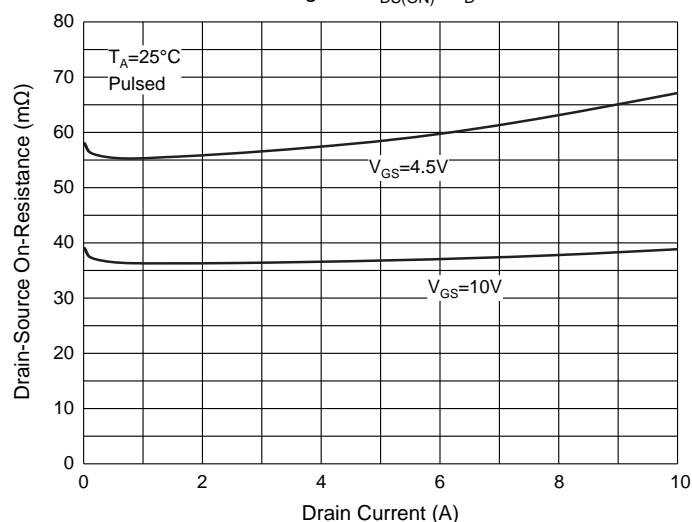


Fig. 4 -  $R_{DS(ON)} - V_{GS}$

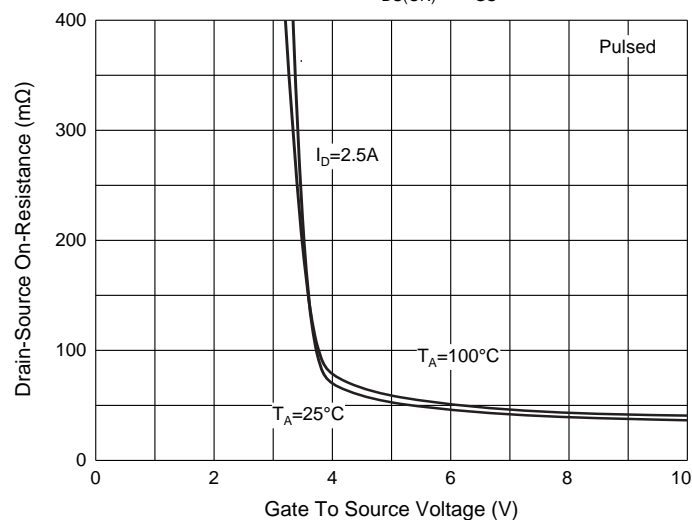


Fig. 5 -  $I_S - V_{SD}$

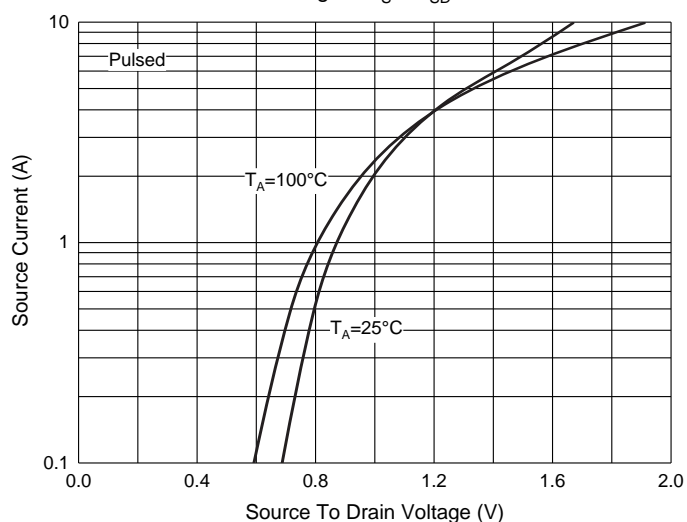
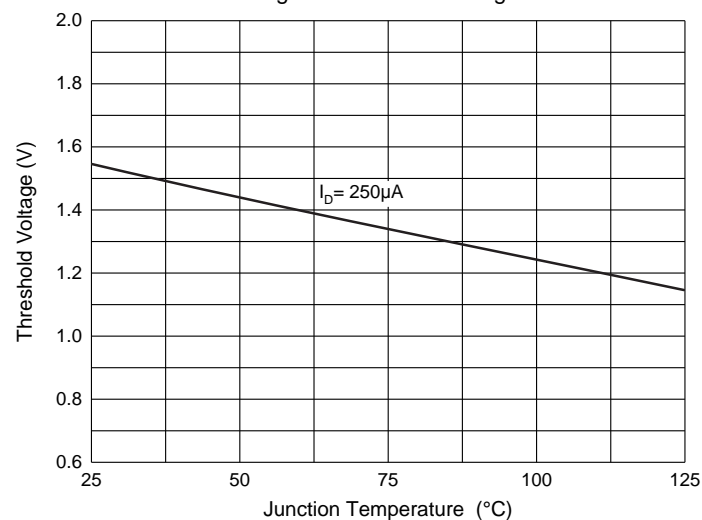


Fig. 6 - Threshold Voltage



## 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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