

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 =10μA	20			V
Gate-Threshold Voltage ^(Note3)	V _{GS(th)}	V _{DS} =V _{GS} , I _D =50μA	0.65		1.2	V
Gate-Body Leakage Current	I _{GSS}	V _{GS} =± 8V, V _{DS} =0V			±100	nA
Zero Gate Voltage Drain Current	I _{DSS}	V _{DS} =20V, V _{GS} =0V			1	μA
Drain-Source On-Resistance ^(Note3)	R _{DS(on)}	V _{GS} =4.5V, I _D =3.6A		55	72	mΩ
		V _{GS} =2.5V, I _D =3.1A		82	110	
Forward Transconductance ^(Note3)	g _{FS}	V _{DS} =5V, I _D =3.6A		8.5		S
Dynamic Characteristics ^(Note4)						
Input Capacitance	C _{iss}	V _{DS} =10V, V _{GS} =0V, f=1MHz		237		pF
Output Capacitance	C _{oss}			120		
Reverse Transfer Capacitance	C _{rss}			45		
Switching Characteristics ^(Note4)						
Turn-On Delay Time	t _{d(on)}	V _{DD} =10V, V _{GS} =4.5V, I _D =3.6A, R _{GEN} =6Ω		23	45	ns
Turn-On Rise Time	t _r			11	30	
Turn-Off Delay Time	t _{d(off)}			34	70	
Turn-Off Fall Time	t _f			36	70	
Total Gate Charge	Q _g	V _{DS} =10V, V _{GS} =4.5V, I _D =3.6A		6	10	nC
Gate-Source Charge	Q _{gs}			1.4		
Gate-Drain Charge	Q _{gd}			1.8		
Drain-Source Diode Characteristics and Maximum Ratings						
Diode Forward Voltage ^(Note3)	V _{SD}	V _{GS} =0V, I _S =0.94A			1.2	V
Drain-Source Diode Forward Current ^(Note2)	I _S				0.94	A

Notes:

- 1.Repetitive Rating : Pulse Width limited By Maximum Junction Temperature.
- 2.Surface Mounted on FR4 Board, $t < 10$ sec.
- 3.Pulse Test : Pulse Width $< 300\mu s$, Duty Cycle $< 2\%$.
- 4.Guaranteed By Design, Not Subject to Production Testing.

Curve Characteristics

Fig. 1 - Output Characteristics

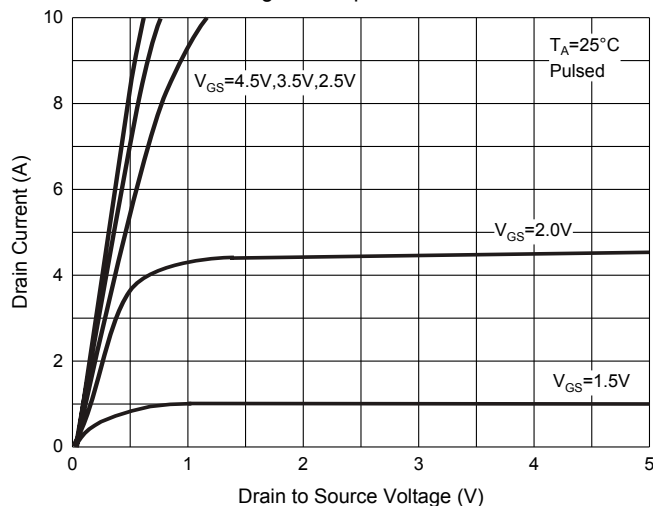


Fig. 2 - Transfer Characteristics

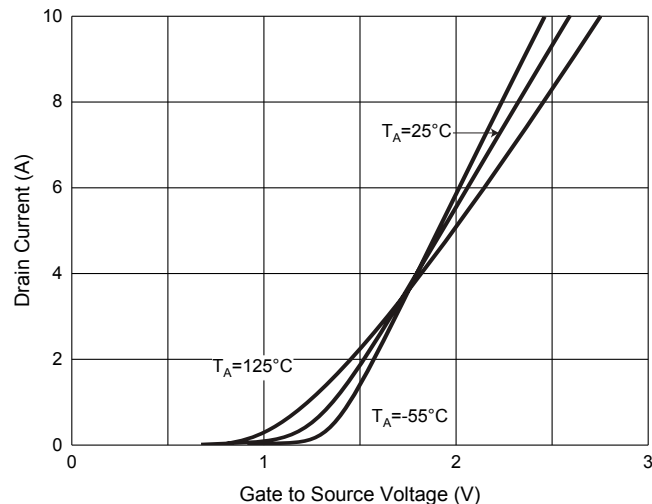


Fig. 3 - Capacitance Characteristics

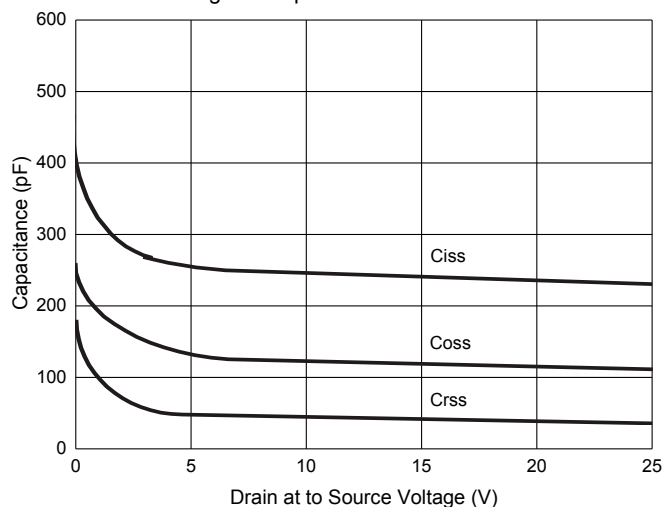


Fig. 4 - $R_{DS(ON)}$ —Temperature

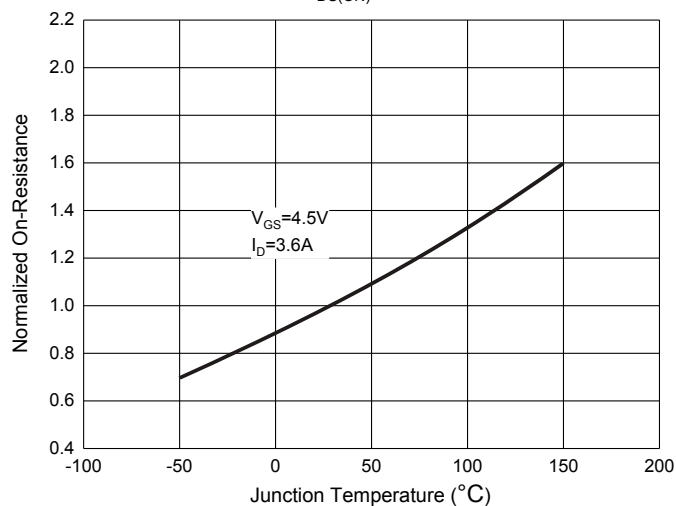


Fig. 5 - Threshold Voltage

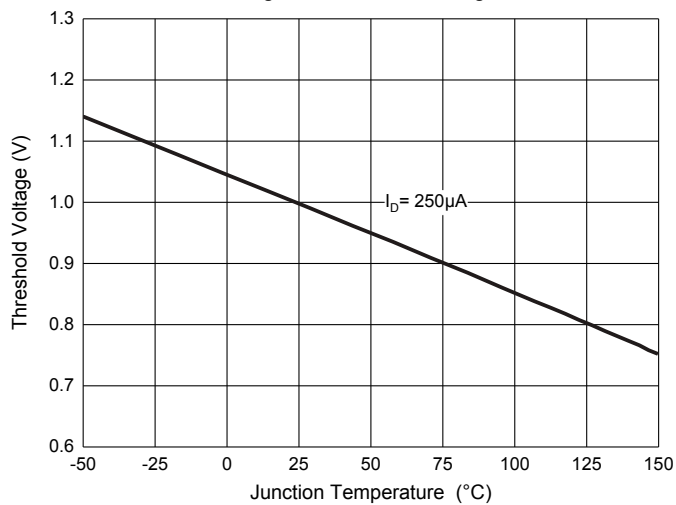
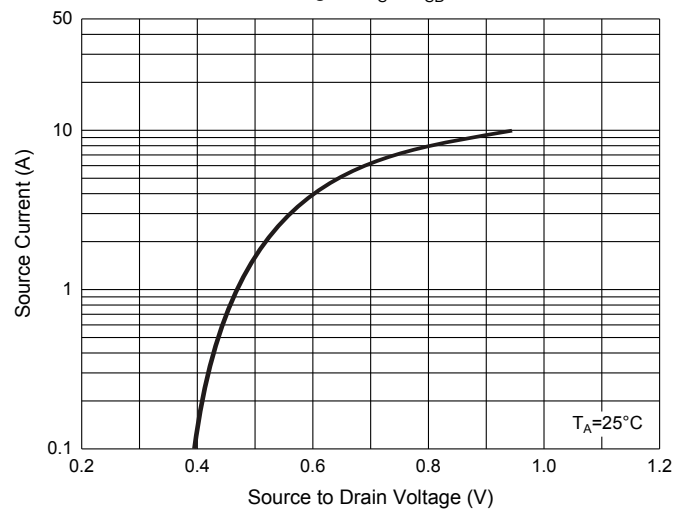


Fig. 6 - I_S — V_{SD}



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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