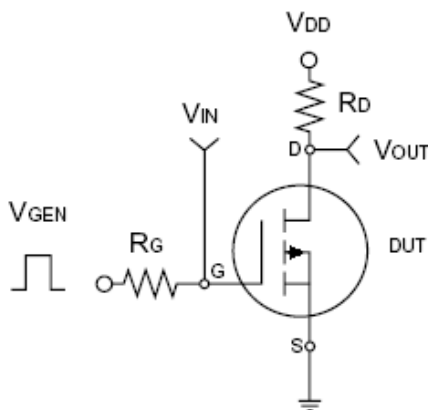


Electrical Specifications (Ta = 25°C unless otherwise noted)

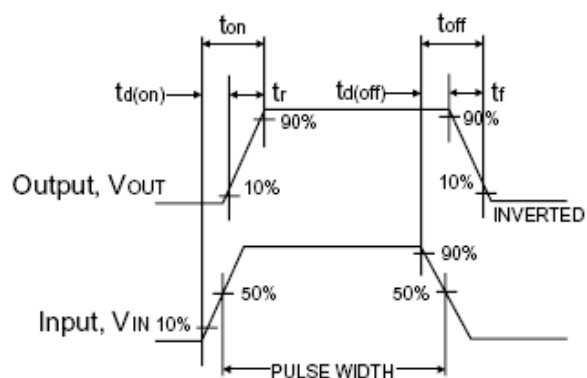
Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Static						
Drain-Source Breakdown Voltage	$V_{GS} = 0V, I_D = -250\mu A$	BV_{DSS}	-20	--	--	V
Gate Threshold Voltage	$V_{DS} = V_{GS}, I_D = -250\mu A$	$V_{GS(TH)}$	-0.45	--	-0.95	V
Gate Body Leakage	$V_{GS} = \pm 8V, V_{DS} = 0V$	I_{GSS}	--	--	± 100	nA
Zero Gate Voltage Drain Current	$V_{DS} = -9.6V, V_{GS} = 0V$	I_{DSS}	--	--	-1.0	μA
On-State Drain Current ^a	$V_{DS} = -10V, V_{GS} = -5V$	$I_{D(ON)}$	-6	--	--	A
Drain-Source On-State Resistance ^a	$V_{GS} = -4.5V, I_D = -2.8A$	$R_{DS(ON)}$	--	85	130	m Ω
	$V_{GS} = -2.5V, I_D = -2.0A$		--	122	190	
Forward Transconductance ^a	$V_{DS} = -5V, I_D = -4A$	g_{fs}	--	6.5	--	S
Diode Forward Voltage	$I_S = -0.75A, V_{GS} = 0V$	V_{SD}	-0.8	--	-1.2	V
Dynamic^b						
Total Gate Charge	$V_{DS} = -6V, I_D = -2.8A,$ $V_{GS} = -4.5V$	Q_g	--	5.4	10	nC
Gate-Source Charge		Q_{gs}	--	0.8	--	
Gate-Drain Charge		Q_{gd}	--	1.1	--	
Input Capacitance	$V_{DS} = -6V, V_{GS} = 0V,$ $f = 1.0MHz$	C_{iss}	--	447	--	pF
Output Capacitance		C_{oss}	--	127	--	
Reverse Transfer Capacitance		C_{rss}	--	80	--	
Switching^c						
Turn-On Delay Time	$V_{DD} = -6V, R_L = 6\Omega,$ $I_D = -1A, V_{GEN} = -4.5V,$ $R_G = 6\Omega$	$t_{d(on)}$	--	5	25	nS
Turn-On Rise Time		t_r	--	19	60	
Turn-Off Delay Time		$t_{d(off)}$	--	95	110	
Turn-Off Fall Time		t_f	--	65	80	

Notes:

- a. pulse test: PW = 300 μ S, duty cycle = 2%
- b. For DESIGN AID ONLY, not subject to production testing.
- b. Switching time is essentially independent of operating temperature.



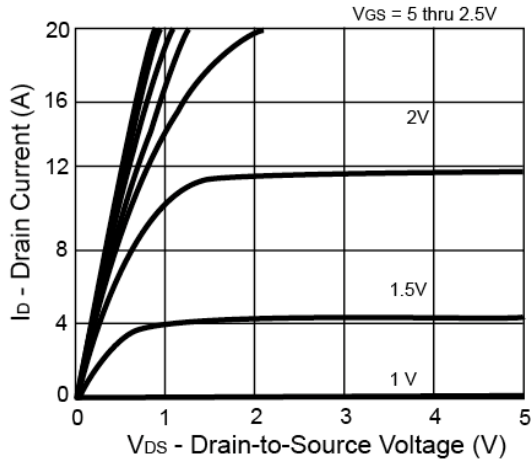
Switching Test Circuit



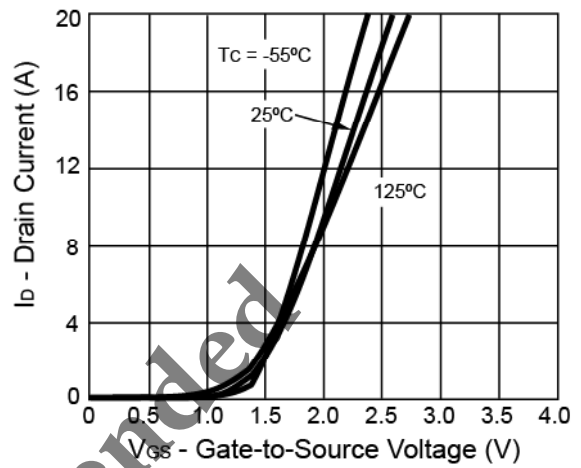
Switchin Waveforms

Electrical Characteristics Curve (Ta = 25°C, unless otherwise noted)

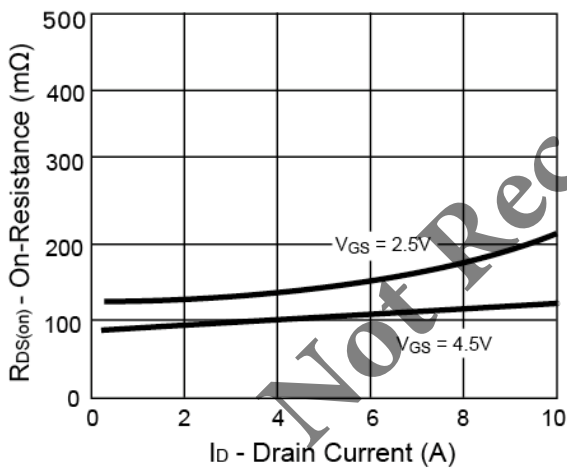
Output Characteristics



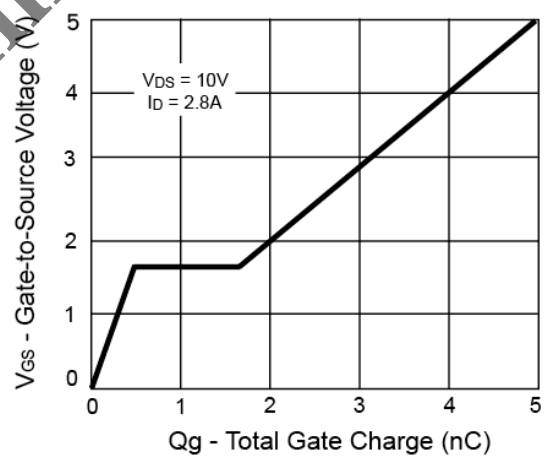
Transfer Characteristics



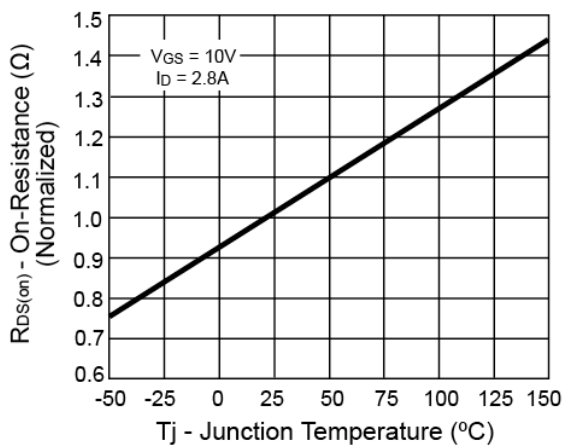
On-Resistance vs. Drain Current



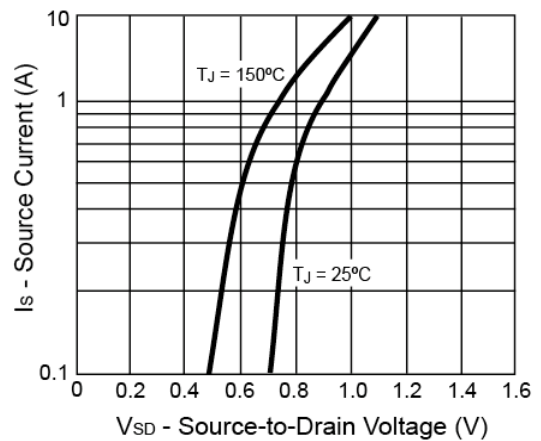
Gate Charge



On-Resistance vs. Junction Temperature

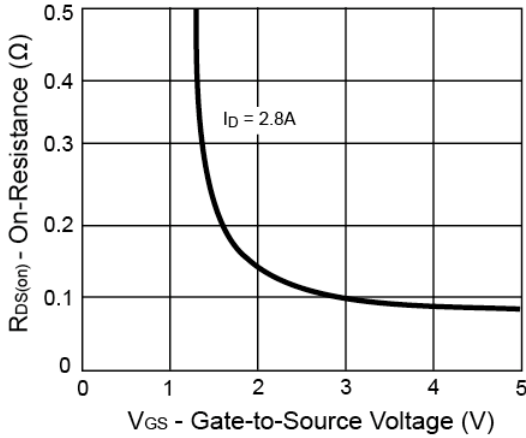


Source-Drain Diode Forward Voltage

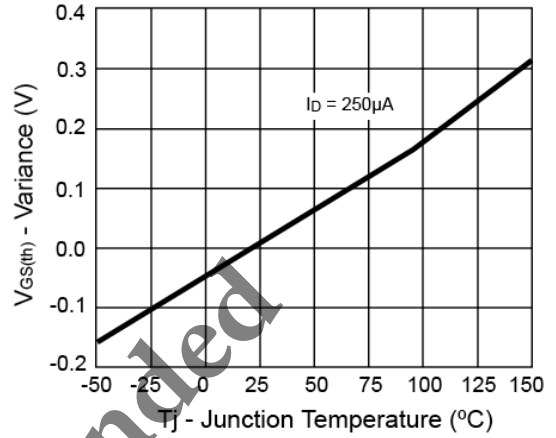


Electrical Characteristics Curve (Ta = 25°C, unless otherwise noted)

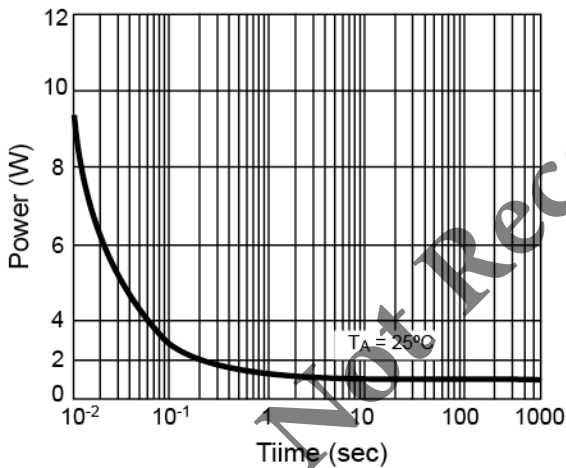
On-Resistance vs. Gate-Source Voltage



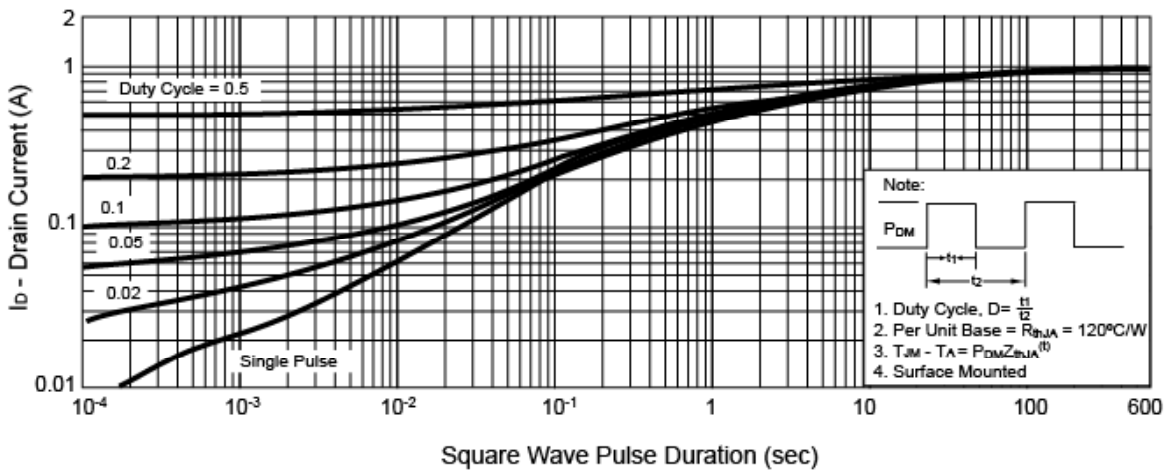
Threshold Voltage



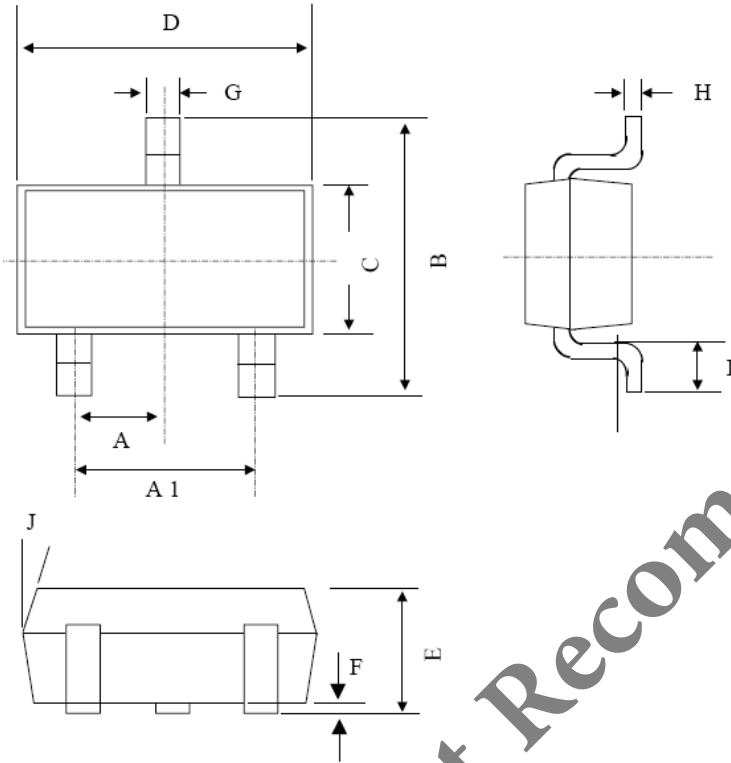
Single Pulse Power



Normalized Thermal Transient Impedance, Junction-to-Ambient

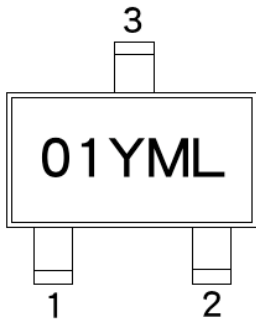


SOT-23 Mechanical Drawing



DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX.
A	0.95 BSC		0.037 BSC	
A1	1.9 BSC		0.074 BSC	
B	2.60	3.00	0.102	0.118
C	1.40	1.70	0.055	0.067
D	2.80	3.10	0.110	0.122
E	1.00	1.30	0.039	0.051
F	0.00	0.10	0.000	0.004
G	0.35	0.50	0.014	0.020
H	0.10	0.20	0.004	0.008
I	0.30	0.60	0.012	0.024
J	5°	10°	5°	10°

Marking Diagram



- 01** = Device Code
- Y** = Year Code
- M** = Month Code for Halogen Free Product
 - O** =Jan **P** =Feb **Q** =Mar **R** =Apr
 - S** =May **T** =Jun **U** =Jul **V** =Aug
 - W** =Sep **X** =Oct **Y** =Nov **Z** =Dec
- L** = Lot Code

Not Recommended

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