Features

- Epoxy Meets UL 94 V-0 Flammability Rating
- Halogen Free Available Upon Request By Adding Suffix "-HF"
- Moisture Sensitivity Level 1
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

Dual P-Channel MOSFET

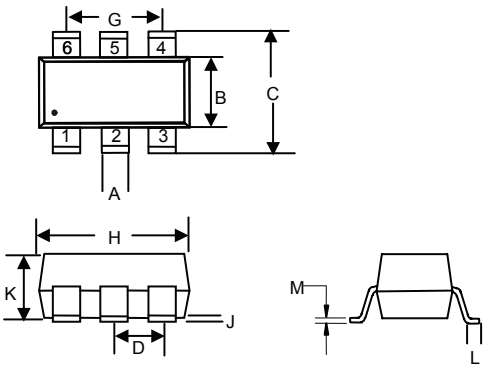
Maximum Ratings

- Operating Junction Temperature Range : -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Maximum Thermal Resistance: 100°C/W Junction to Ambient(Note1)

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-30	V
Gate-Source Volltage	V_{GS}	±20	V
Continuous Drain Current	I_D	-3	A
Pulsed Drain Current	I_{DM}	-20	A
Power Dissipation	P_D	1.25	W

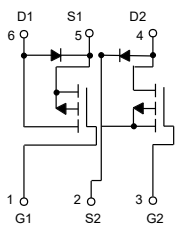
Note 1. Surface Mounted on FR4 Board, t < 10 sec.

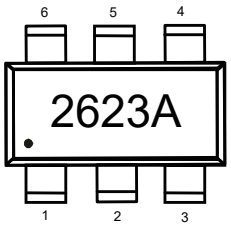
SOT23-6L



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.012	0.020	0.30	0.50	
B	0.051	0.070	1.30	1.80	
C	0.087	0.126	2.20	3.20	
D	0.037		0.95		TYP.
G	0.074		1.90		TYP.
H	0.106	0.122	2.70	3.10	
J	0.002	0.006	0.05	0.15	
K	0.030	0.051	0.75	1.30	
L	0.012	0.024	0.30	0.60	
M	0.003	0.008	0.08	0.22	

Internal Structure and Marking Code





Electrical Characteristics @ 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=-250μA	-30			V
Gate-Source Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS} =±20V			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-30V, V_{GS}=0V			-1	μA
Gate-Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=-250μA	-1.0	-1.5	-2.5	V
Drain-Source On-Resistance(Note2)	$R_{DS(on)}$	V_{GS}=-10V, I_D=-3A			90	mΩ
		V_{GS}=-4.5V, I_D=-2A			115	mΩ
Diode Characteristics						
Diode Forward Voltage(Note2)	V_{SD}	V_{GS}=0V, I_S=-1A			-1.2	V
Reverse Recovery Time	t_{rr}	I_{SD}=-3 A, dI_{SD}/dt=100A/μs		25		nS
Reverse Recovery Charge	Q_{rr}			3.8		nC
Dynamic Characteristics(Note3)						
Input Capacitance	C_{iss}	V_{DS}=-10V,V_{GS}=0V,f=1MHz		365		pF
Output Capacitance	C_{oss}			59		
Reverse Transfer Capacitance	C_{rss}			45		
Total Gate Charge	Q_g	V_{DS}=-10V,V_{GS}=-15V,I_D=-3A		7.5		nC
Gate-Source Charge	Q_{gs}			1.7		
Gate-Drain Charge	Q_{gd}			1.2		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=-10V,V_{DS}=-15V, R_{GEN}=2.5Ω,I_{DS}=-1A		3.2		ns
Turn-On Rise Time	t_r			17.8		
Turn-Off Delay Time	$t_{d(off)}$			18		
Turn-Off Fall Time	t_f			23.5		

Note:

2. Pulse Test: Pulse Width=300μs,Duty Cycle≤2%.

3. These Parameters Have No Way To Verify.

Curve Characteristics

Fig. 1 - Output Characteristics

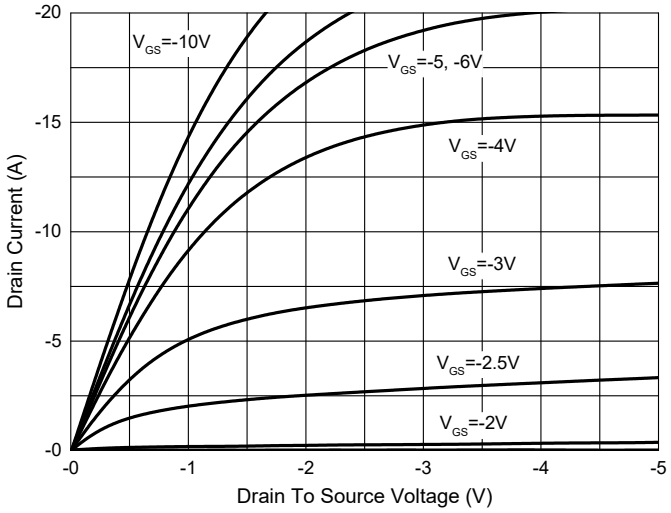


Fig. 2 - Transfer Characteristics

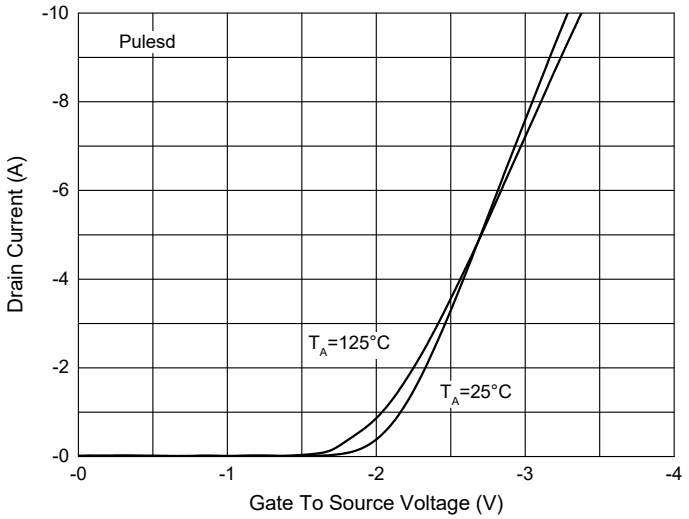


Fig. 3 - $R_{DS(ON)}$—I_D

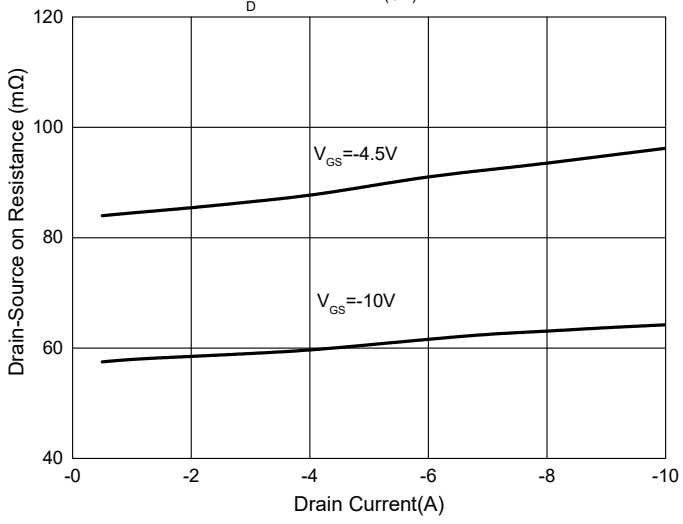


Fig. 4 - Normalized On Resistance Characteristics

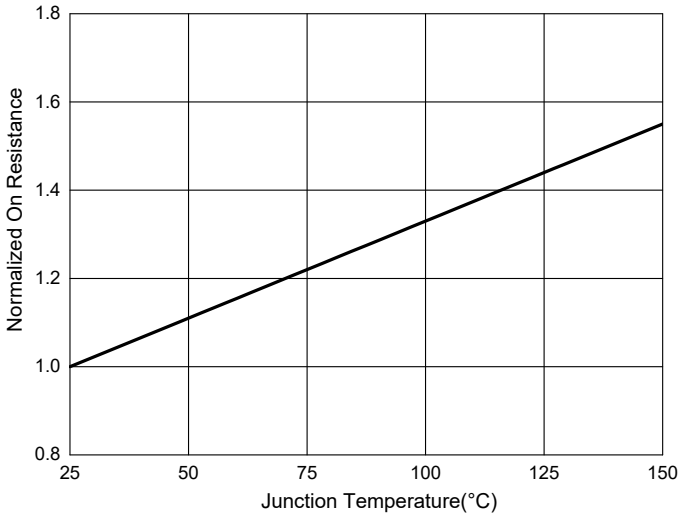


Fig. 5 - Gate Charge

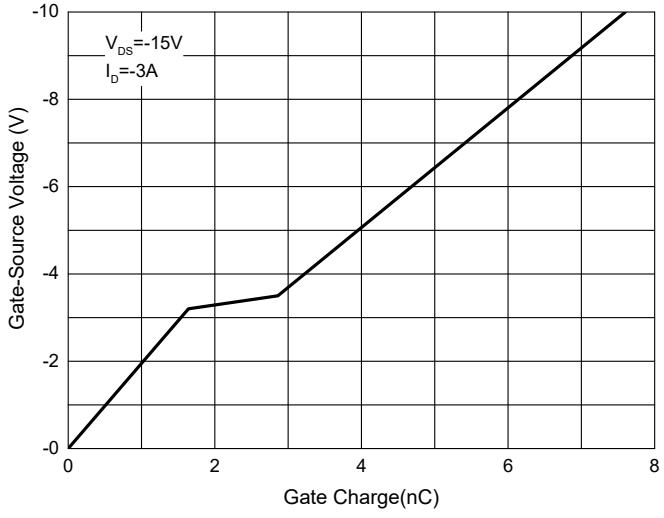
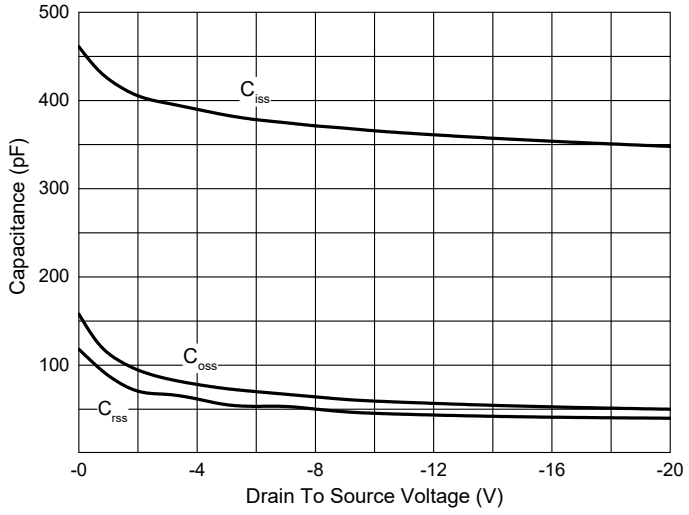


Fig. 6 - Capacitance Characteristics



Ordering Information

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

Note : Adding "-HF" suffix for halogen free, eg. Part Number-TP-HF