Features

- AEC-Q101 Qualified
- Low ON-Resistance
- Fast Switching Speed
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 1
- Halogen Free. “Green” Device (Note 1)
- Lead Free Finish/RoHS Compliant ("P" Suffix Designates RoHS Compliant. See Ordering Information)

N-Channel MOSFET

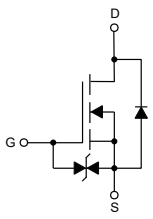
Maximum Ratings

- Operating Junction Temperature Range : -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 833°C/W Junction to Ambient

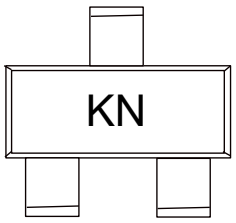
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	30	V
Gate-Source Voltage	V_{GS}	±20	V
Drain Current-Continuous	I_D	115	mA
Power Dissipation	P_D	150	mW

Note: 1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

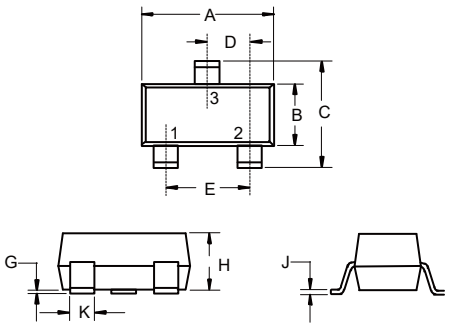
Internal Structure and Marking Code



1. GATE
2. SOURCE
3. DRAIN

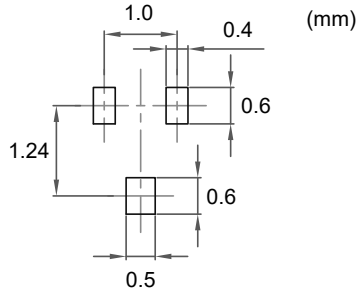


SOT-523



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.059	0.067	1.50	1.70	
B	0.030	0.033	0.75	0.85	
C	0.057	0.069	1.45	1.75	
D	0.020		0.50		TYP.
E	0.035	0.043	0.90	1.10	
G	0.000	0.004	0.00	0.10	
H	0.024	0.031	0.60	0.80	
J	0.004	0.008	0.10	0.20	
K	0.006	0.014	0.15	0.35	

Suggested Solder Pad Layout



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=10μA	30			V
Gate-Source Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS} =±20V			±10	μA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V, V_{GS}=0V, T_j=50°C			100	nA
Gate-Threshold Voltage	$V_{GS(th)}$	V_{DS}=3V, I_D=100μA	0.8		1.5	V
Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V, I_D=100mA			4	Ω
		V_{GS}=4.5V, I_D=50mA			5	
		V_{GS}=2.5V, I_D=10mA			7	
Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_{SD}=100mA			1.3	V
Dynamic Characteristics(Note 2)						
Input Capacitance	C_{iss}	V_{DS}=30V,V_{GS}=0V,f=1MHz		28		pF
Output Capacitance	C_{oss}			7.8		
Reverse Transfer Capacitance	C_{rss}			6.5		
Total Gate Charge	Q_g	V_{DS}=30V,V_{GS}=10V,IDS=200mA		1.3		nC
Gate-Source Charge	Q_{gs}			0.2		
Gate-Drain Charge	Q_{gd}			0.1		
Turn-On Delay Time	$t_{d(on)}$	V_{GEN}=10V, V_{DS} =30V I_{DS}=200mA, R_g=3.9Ω, R_L=150Ω		3.1		ns
Turn-On Rise Time	t_r			3.9		
Turn-Off Delay Time	$t_{d(off)}$			8.7		
Turn-Off Fall Time	t_f			12		

Note 2. Guaranteed by design, not subjet to production testing.

Curve Characteristics

Fig. 1 - Output Characteristics

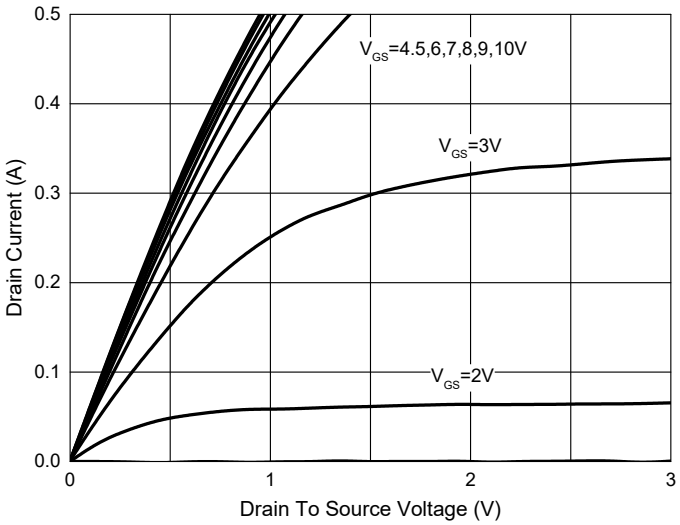


Fig. 2 - I_S—V_{SD}

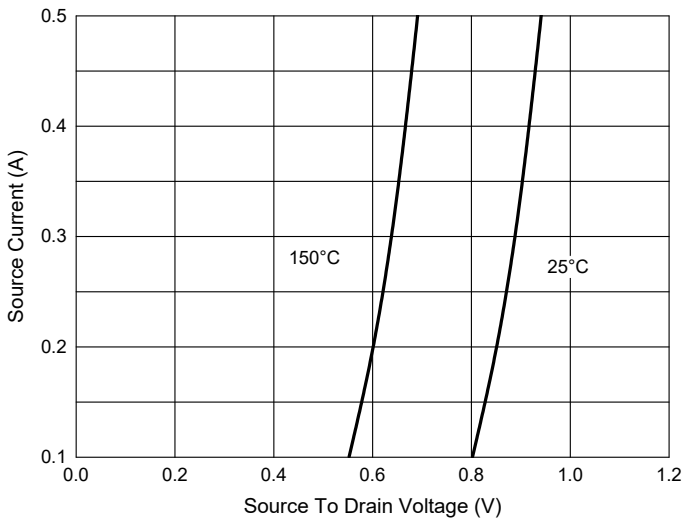


Fig. 3 - $R_{DS(ON)}$—I_D

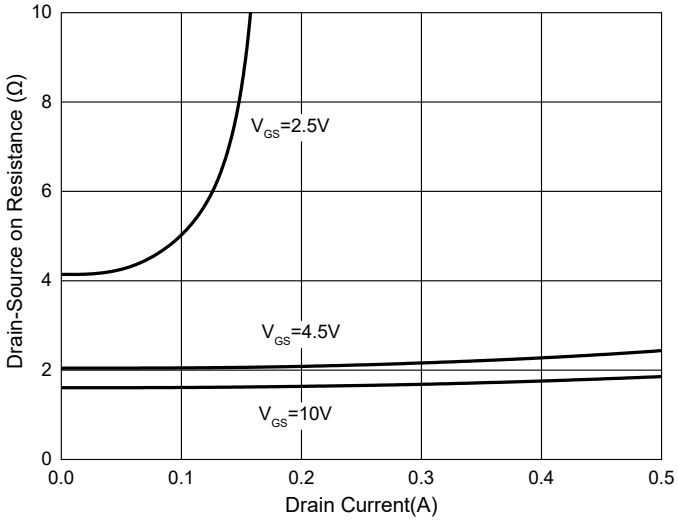


Fig. 4 - Gate Charge

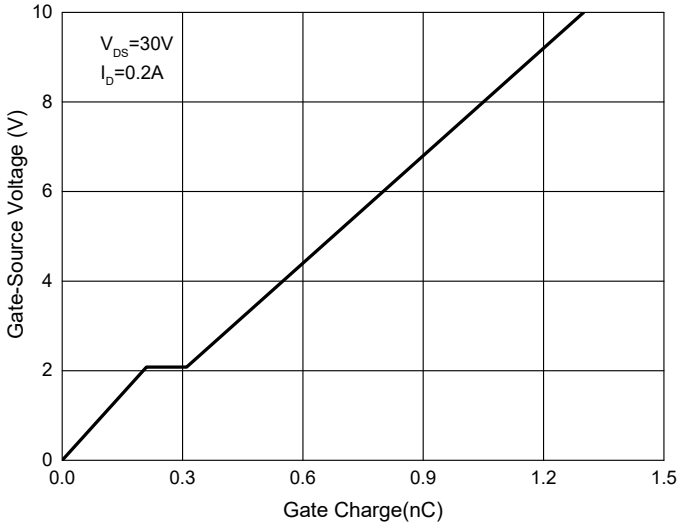


Fig. 5 - Normalized On Resistance Characteristics

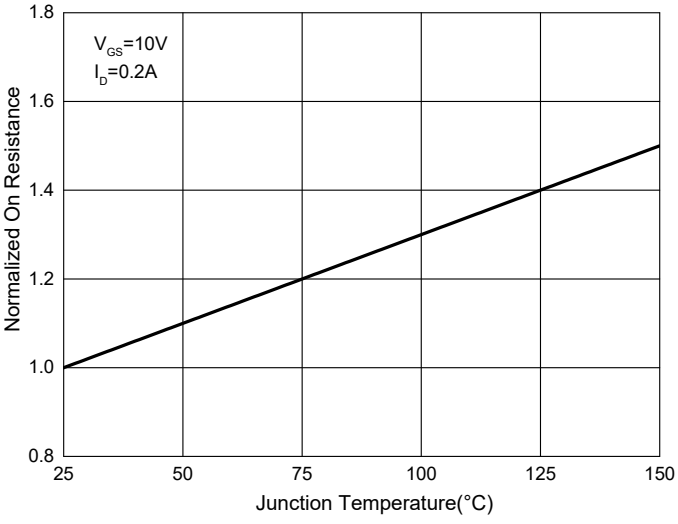
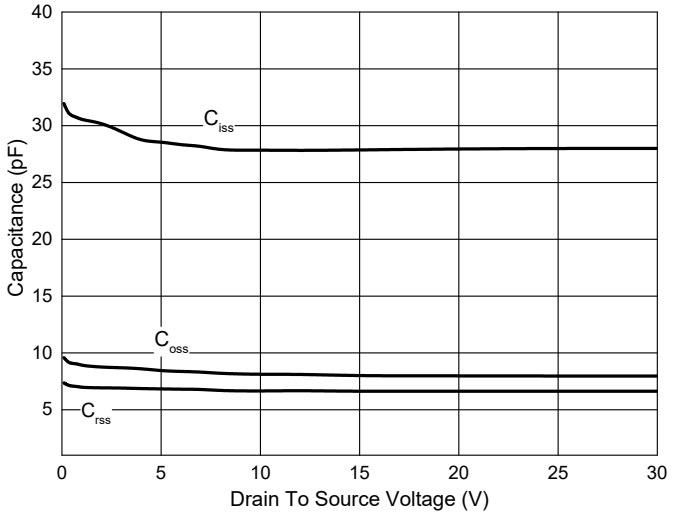


Fig. 6 - Capacitance Characteristics



Ordering Information

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

单击下面可查看定价，库存，交付和生命周期等信息

>>MCC(美微科)