Features

- Advanced Trench Cell Design
- High Speed Switch
- 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

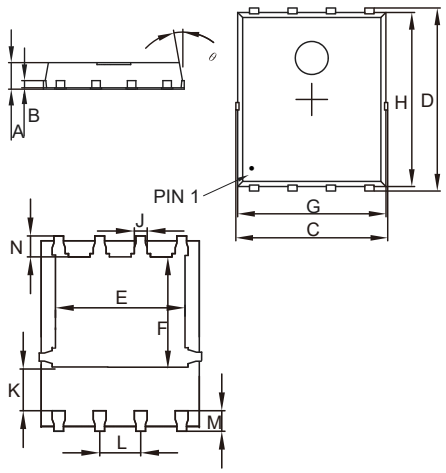
Maximum Ratings

- Operating Junction Temperature Range : -55°C to +150°C
- Storage Temperature Range: -55°C to +150°C
- Thermal Resistance: 1.67°C/W Junction to Case

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	100	V
Gate-Source Volltage	V_{GS}	±20	V
Continuous Drain Current (Note 2)	I_D	50	A
Pulsed Drain Current (Note 3)	I_{DM}	150	A
Single Pulse Avalanche Energy	E_{AS}	105	mJ
Total Power Dissipation	P_D	75	W

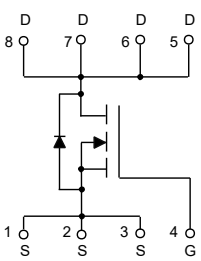
Note:
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.
2. The Maximum Current Rating is Package Limited.
3. Single Pulse Width Limited by Junction Temperature $T_{J(MAX)}$=150°C.

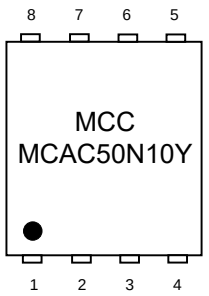
DFN5060



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.031	0.047	0.80	1.20	
B	0.010		0.254		TYP.
C	0.193	0.222	4.90	5.64	
D	0.232	0.250	5.90	6.35	
E	0.148	0.167	3.75	4.25	
F	0.126	0.154	3.20	3.92	
G	0.189	0.213	4.80	5.40	
H	0.222	0.239	5.65	6.06	
K	0.045	0.059	1.15	1.50	
J	0.012	0.020	0.30	0.50	
L	0.046	0.054	1.17	1.37	
M	0.012	0.028	0.30	0.71	
N	0.016	0.028	0.40	0.71	

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	100			V
Gate-Source Leakage Current	I_{GSS}	V_{DS}=0V, V_{GS} =±20V			±100	nA
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=80V, V_{GS}=0V			1	μA
Gate-Threshold Voltage(Note 4)	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	1	2	3	V
Drain-Source On-Resistance(Note 4)	$R_{DS(on)}$	V_{GS}=10V, I_D=25A		5	6	mΩ
		V_{GS}=4.5V, I_D=25A		8	10	
Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_S=0.5A			1.3	V
Dynamic Characteristics(Note 5)						
Input Capacitance	C_{iss}	V_{DS}=15V,V_{GS}=0V,f=1MHz		2808		pF
Output Capacitance	C_{oss}			961		
Reverse Transfer Capacitance	C_{rss}			23		
Total Gate Charge	Q_g	V_{DS}=50V,V_{GS}=10V,I_D=24A		50		nC
Gate-Source Charge	Q_{gs}			17		
Gate-Drain Charge	Q_{gd}			11		
Reverse Recovery Chrage	Q_{rr}	I_S=20A, di/dt=500A/μs		140		
Reverse Recovery Time	t_{rr}			45		ns
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V, V_{DS}=50V, R_L=2.5Ω, R_{GEN}=3Ω		15		
Turn-On Rise Time	t_r			12		
Turn-Off Delay Time	$t_{d(off)}$			25		
Turn-Off Fall Time	t_f			13		

Note 4. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤2%.

5. Guaranteed by Design, Not Subject to Production Testing.

Curve Characteristics

Fig. 1 - Typical Output Characteristics

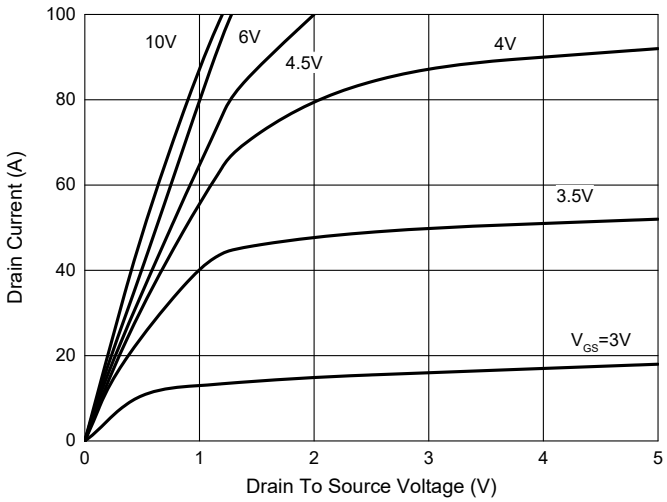


Fig. 2 - Transfer Characteristics

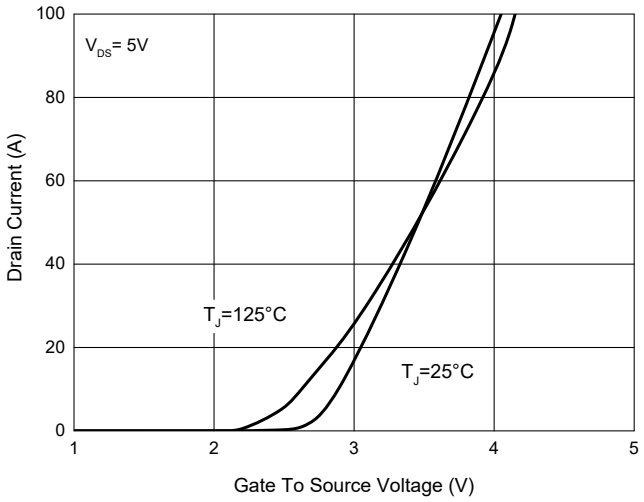


Fig. 3 - $R_{DS(ON)}$—I_D

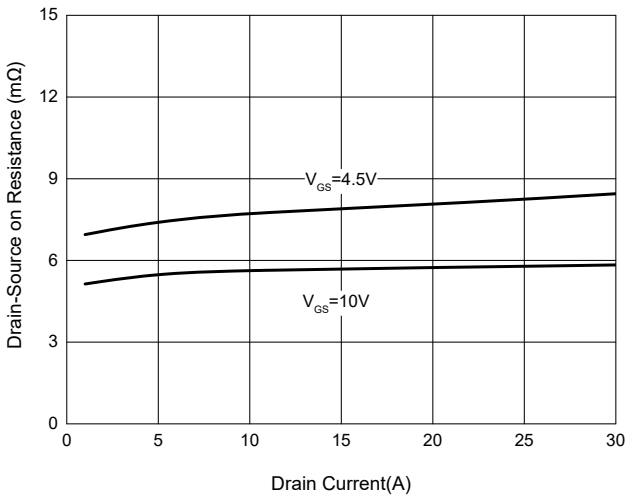


Fig. 4 - Normalized On Resistance Characteristics

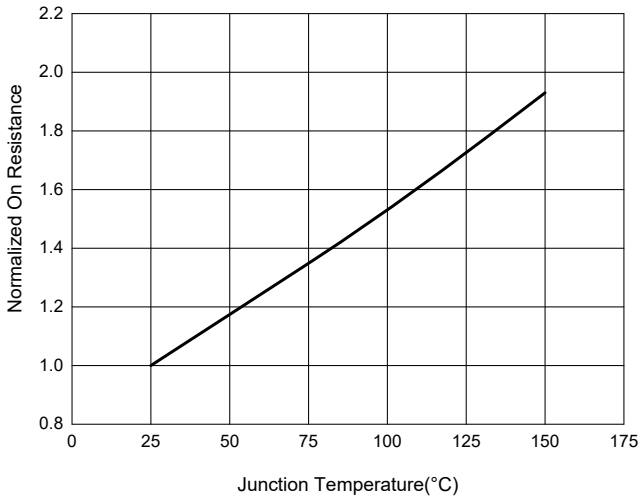


Fig. 5 - Total Gate Charge Characteristics

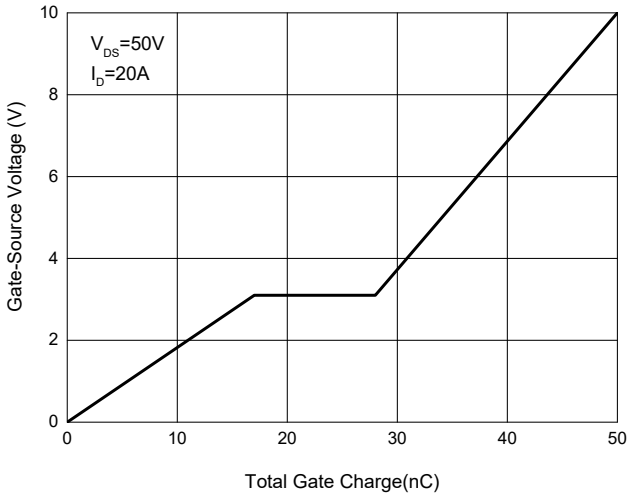
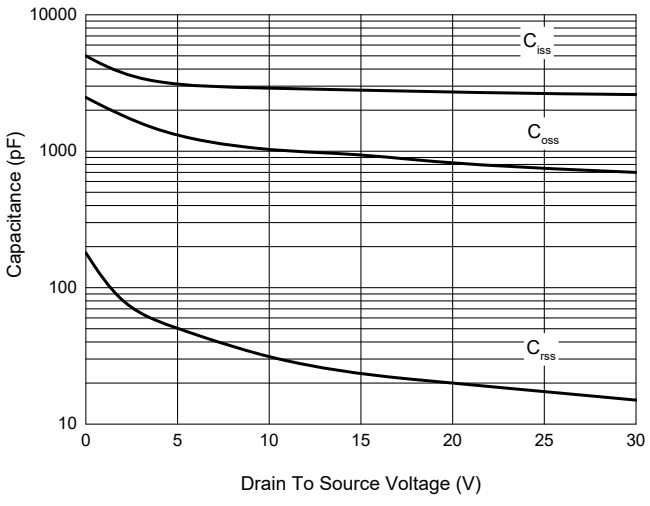


Fig. 6 - Capacitance Characteristics



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 5Kpcs/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)