Features

- Trench Power MV MOSFET Technology
- Excellent Package for Heat Dissipation
- High Density Cell Design for Low $R_{DS(on)}$
- Epoxy Meets UL 94 V-0 Flammability Rating
- Moisture Sensitivity Level 3
- 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: 3°C/W Junction to Case

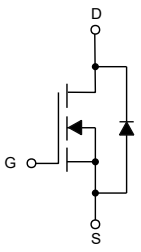
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	100	V
Gate-Source Volltage		V_{GS}	±20	V
Continuous Drain Current	T_C=25°C	I_D	15	A
	T_C=100°C		9.4	A
Pulsed Drain Current		I_{DM}	55	A
Single Pulse Avalanche Energy(Note 2)		E_{AS}	4	mJ
Total Power Dissipation		P_D	41	W

Note:

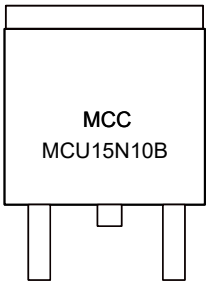
1. Halogen free "Green” products are defined as those which contain <900ppm bromine, <900ppm chlorine (<1500ppm total Br + Cl) and <1000ppm antimony compounds.

2.EAS Condition:T_J=25°C,V_{DD}=25V,V_G=10V,R_g=25Ω.

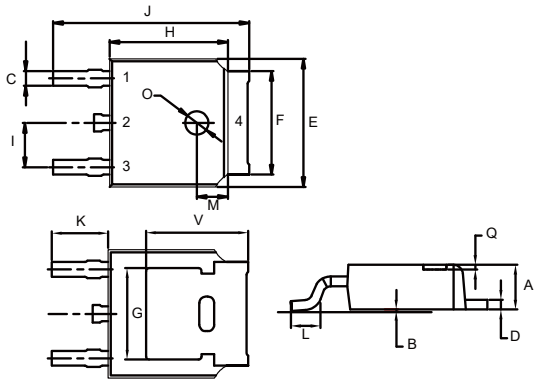
Internal Structure and Marking Code



1.GATE
2.DRAIN
3.SOURCE
4.DRAIN



DPAK



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.087	0.094	2.20	2.40	
B	0.000	0.005	0.00	0.13	
C	0.026	0.034	0.66	0.86	
D	0.018	0.023	0.46	0.58	
E	0.256	0.264	6.50	6.70	
F	0.201	0.215	5.10	5.46	
G	0.190		4.83		TYP.
H	0.236	0.244	6.00	6.20	
I	0.086	0.094	2.18	2.39	
J	0.386	0.409	9.80	10.40	
K	0.114		2.90		TYP.
L	0.055	0.067	1.40	1.70	
M	0.063		1.60		TYP.
O	0.043	0.051	1.10	1.30	
Q	0.000	0.012	0.00	0.30	
V	0.211		5.35		TYP.

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}=100V, V_{GS}=0V			1	μA
Gate-Threshold Voltage(Note 3)	$V_{GS(th)}$	V_{DS}=V_{GS}, I_D=250μA	1.2		2.5	V
Drain-Source On-Resistance(Note 3)	$R_{DS(on)}$	V_{GS}=10V, I_D=5A		65	90	mΩ
		V_{GS}=4.5V, I_D=3A		75	110	
Diode Forward Voltage	V_{SD}	V_{GS}=0V, I_S=15A			1.2	V
Continuous Body Diode Current	I_S				15	A
Dynamic Characteristics(Note 4)						
Input Capacitance	C_{iss}	V_{DS}=15V,V_{GS}=0V,f=1MHz		1100		pF
Output Capacitance	C_{oss}			55		
Reverse Transfer Capacitance	C_{rss}			40		
Total Gate Charge	Q_g	V_{DS}=50V,V_{GS}=10V,I_D=5A		12		nC
Gate-Source Charge	Q_{gs}			2.9		
Gate-Drain Charge	Q_{gd}			1.8		
Turn-On Delay Time	$t_{d(on)}$	V_{GS}=10V,V_{DD}=50V,I_D=5A R_{GEN}=3Ω		3.9		ns
Turn-On Rise Time	t_r			26		
Turn-Off Delay Time	$t_{d(off)}$			16.2		
Turn-Off Fall Time	t_f			8.9		

Note 3. Pulse Test : Pulse Width≤300μs, Duty Cycle ≤2%.

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

Curve Characteristics

Figure 1.OutputCharacteristics

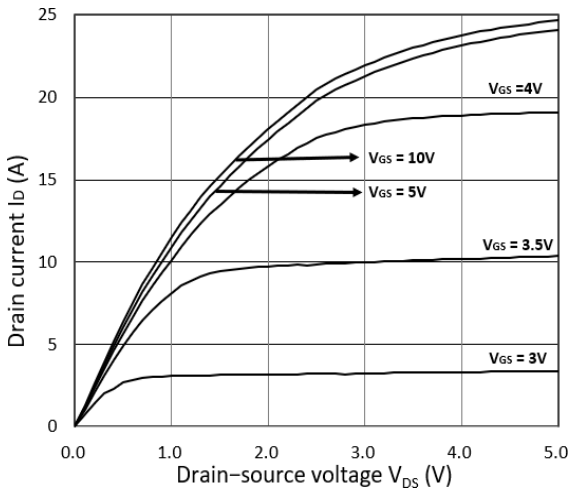


Figure 2. TransferCharacteristics

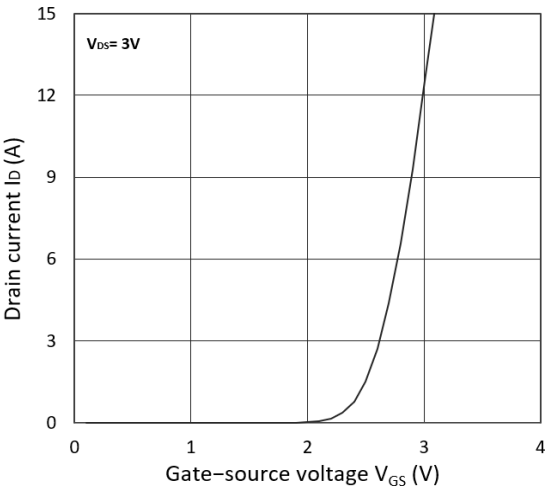


Figure 3.Forward CharacteristicsofReverse

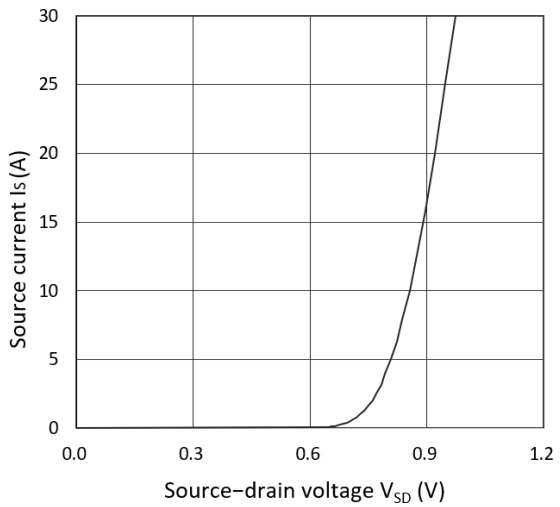


Figure 4. Gate Charge Characteristics

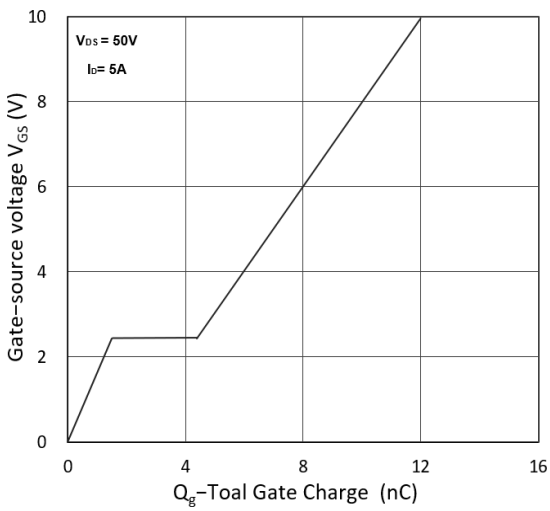


Figure 5.$R_{DS(on)}$vs.V_{GS}

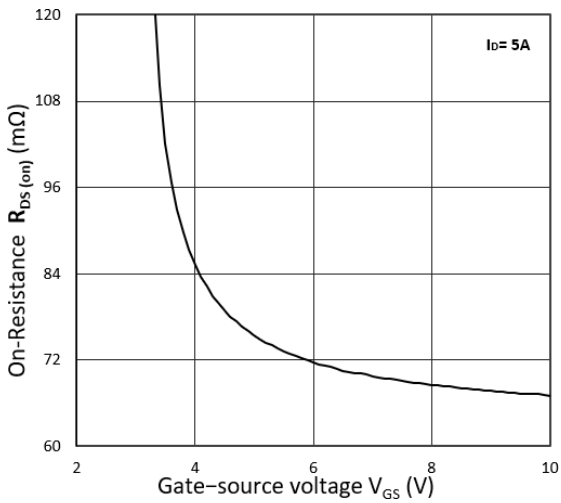
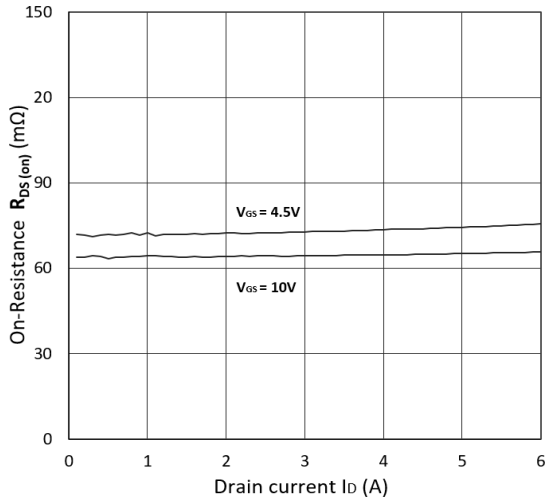


Figure 6. $R_{DS(on)}$ vs.I_D



Curve Characteristics

Figure 7.Capacitance Characteristics

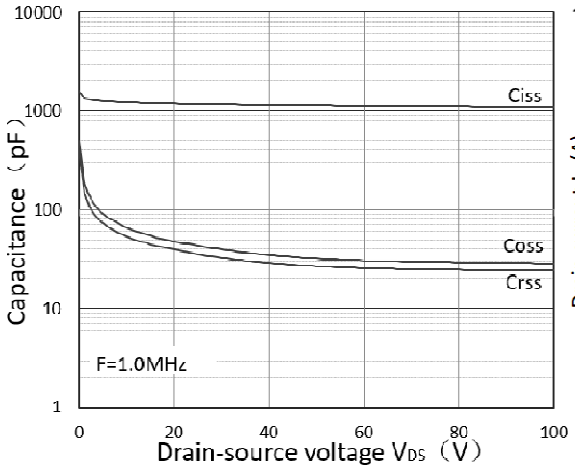


Figure 8. Safe OperatingArea

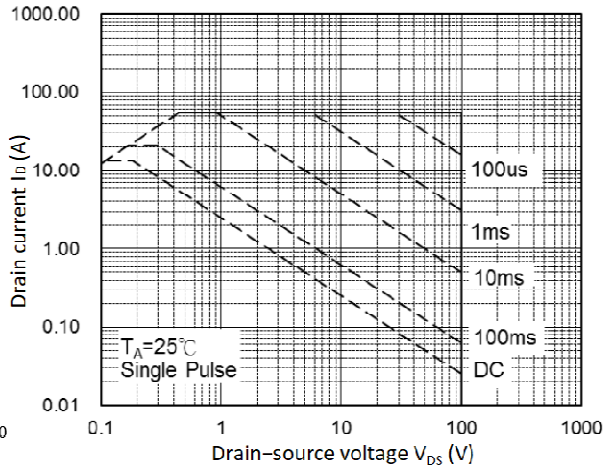
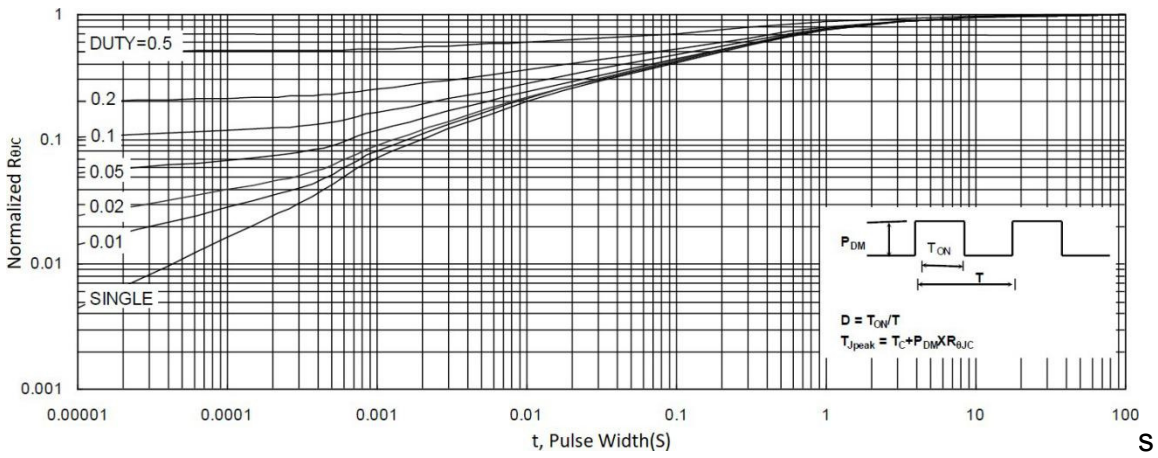


Figure 9.Normalized Maximum Transient Thermal Impedance



Ordering Information

Device	Packing
Part Number-TP	Tape&Reel: 2.5Kpcs/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)