


**STP4407**   
M MOSFET  
- 10A

P C E

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**DESCRIPTION**

T STP4407 P-C

**STP4407**

**ELECTRICAL CHARACTERISTICS** (  $T = 25^{\circ}\text{C}$  U )

Parameter	Symbol	Condition	Min	Typ	Max	Unit
<b>Static</b>						
D B	-S V	$V_{(BR)DSS}$	$V_{GS}=0V, I_D=-250\text{ A}$	-30		V
G V	T	$V_{GS( )}$	$V_{DS}=V_{GS}, I_D=-250\text{ A}$	-1.0	-2.5	V
G	L C	$I_{GSS}$	$V_{DS}=0V, V_{GS}= 20V$		100	A
D	G V C	$I_{DSS}$ $T_J=55^{\circ}\text{C}$	$V_{DS}=-30V, V_{GS}=0V$		-1	A
			$3V_{DS}=-30V, V_{GS}=0V$		-5	
D R	- O -	$R_{DS( )}$	$V_{GS}=-10V, I_D=-10A$ $V_{GS}=-4.5V, I_D=-6.0A$	15 24	20 32	$\Omega$
F T			$V_{DS}=-5V, I_D=-10A$	26		S

D F V  $V_{SD}$   $I_S=-19\text{ A}$  9.84 0 0 9.84 0 0 T 8.219T 9.84 0 ( ) 0.490.048

**TYPICAL CHARACTERISTICS**

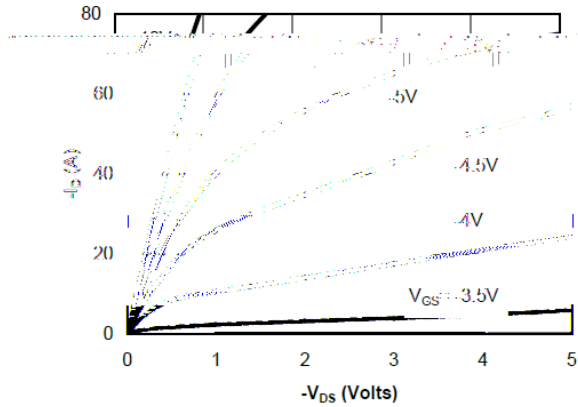


Figure 1: On-Region Characteristics

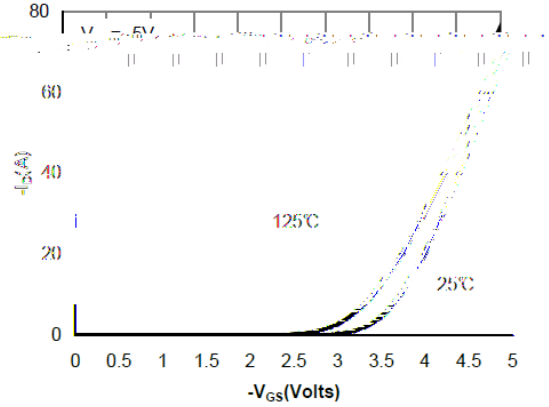


Figure 2: Transfer Characteristics

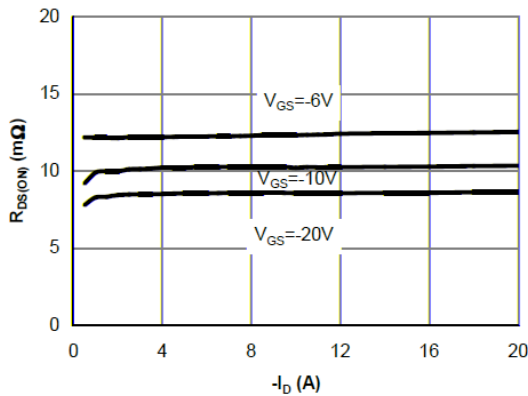


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

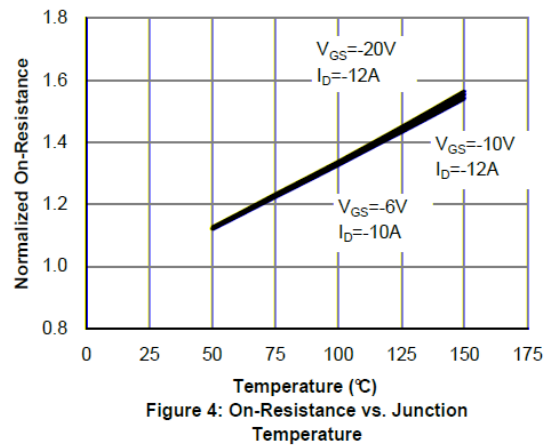


Figure 4: On-Resistance vs. Junction Temperature

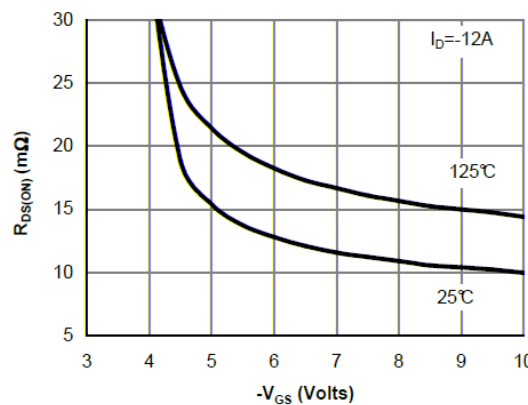


Figure 5: On-Resistance vs. Gate-Source Voltage

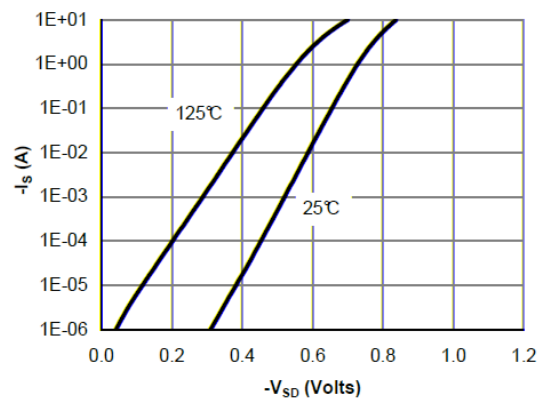


Figure 6: On-Resistance vs. Drain-Source Voltage

**TYPICAL CHARACTERISTICS**

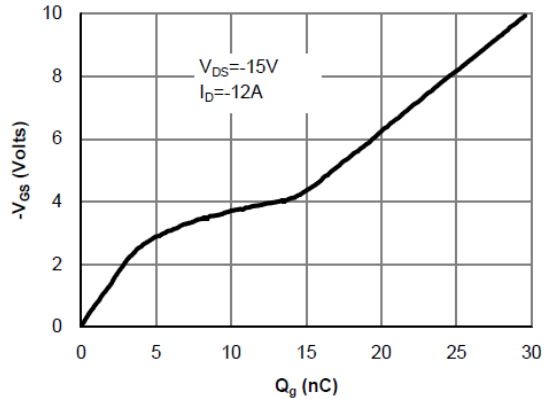


Figure 7: Gate-Charge Characteristics

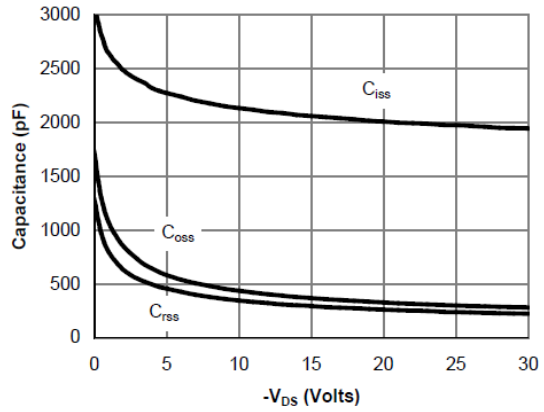


Figure 8: Capacitance Characteristics

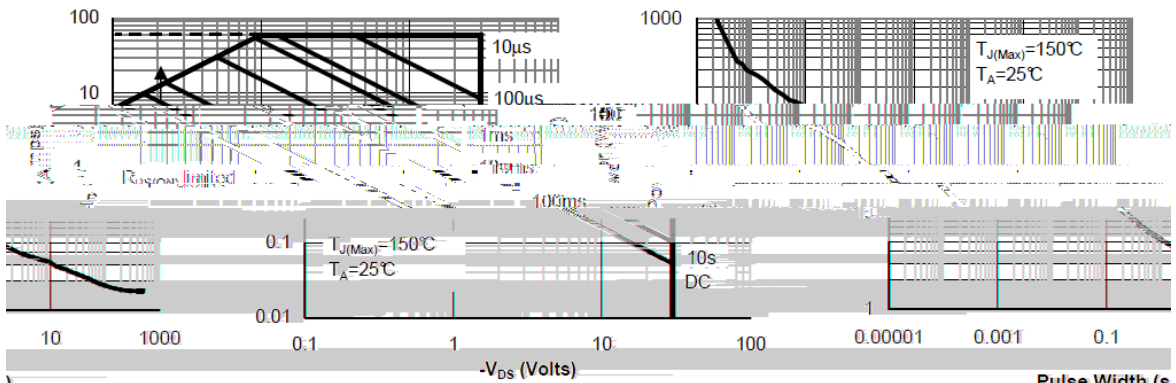


Figure 9: Maximum Forward Biased Safe Operating Area (Note E)

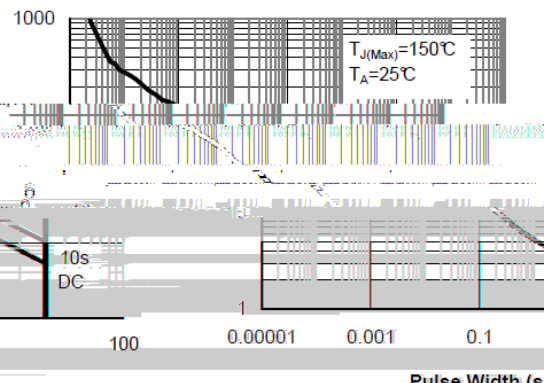


Figure 10: Single Pulse Power to-Ambient (Note E)

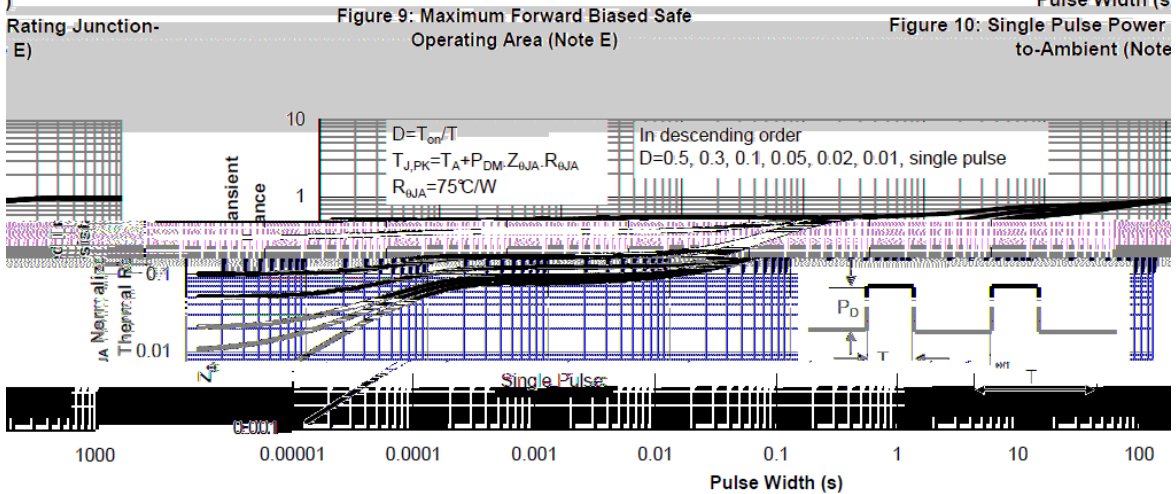
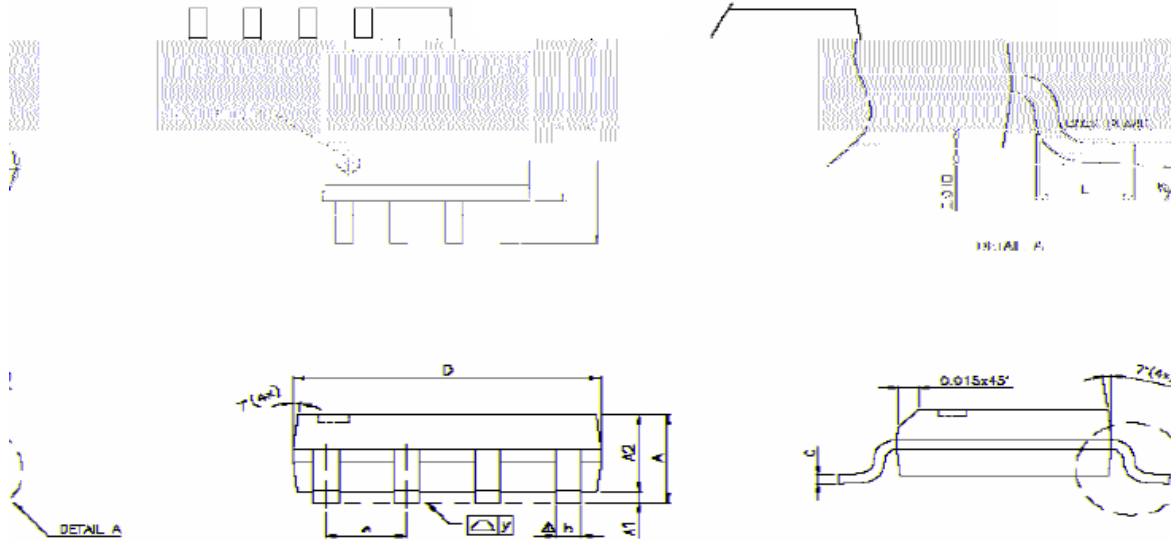


Figure 11: Normalized Maximum Transient Thermal Impedance (Note E)

**PACKAGE OUTLINE SOP-8P**



SYMBOLS	DIMENSIONS IN MILLIMETERS			DIMENSIONS IN INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	1.47	1.60	1.73	0.058	0.063	0.069
a	0.05	—	—	—	—	—
A2	—	—	—	—	—	—
b	0.08	—	—	0.031	—	—
c	0.19	—	—	0.007	—	—
D	0.15	—	—	0.006	—	—
e	0.25	—	—	0.010	—	—
E	0.50	—	—	0.020	—	—
F	0.80	—	—	0.031	—	—
G	—	0.050	—	—	0.002	—
H	0.015	0.028	0.050	—	—	—
I	—	—	0.003	—	—	—
J	—	—	—	—	—	—
K	—	—	—	—	—	—
L	—	—	—	—	—	—
M	—	—	—	—	—	—
N	—	—	—	—	—	—
O	—	—	—	—	—	—
P	—	—	—	—	—	—
Q	—	—	—	—	—	—
R	—	—	—	—	—	—
S	—	—	—	—	—	—
T	—	—	—	—	—	—
U	—	—	—	—	—	—
V	—	—	—	—	—	—
W	—	—	—	—	—	—
X	—	—	—	—	—	—
Y	—	—	—	—	—	—
Z	—	—	—	—	—	—