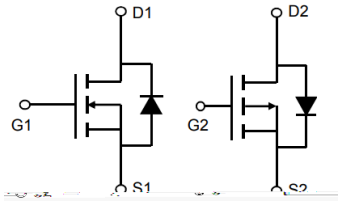
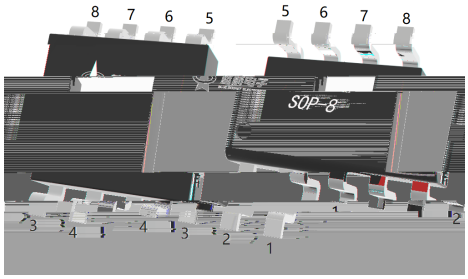
Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

HF Product.

Battery protection switch,Mobile device battery charging and discharging,Load switch.





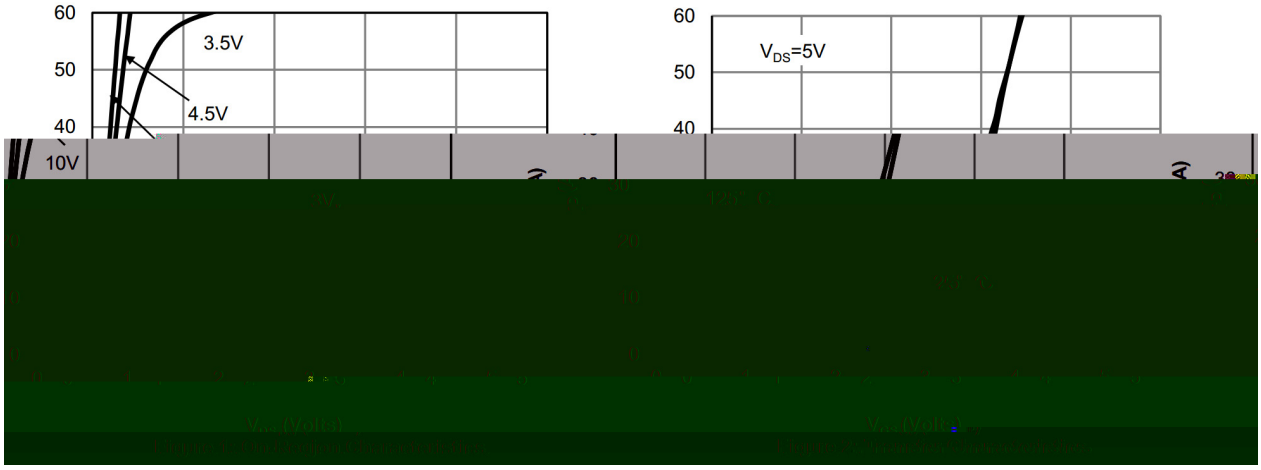
PIN1	S1	PIN 2	G1	PIN 3	S2	PIN 4	G2
PIN 5	D2	PIN 6	D2	PIN 7	D1	PIN 8	D1

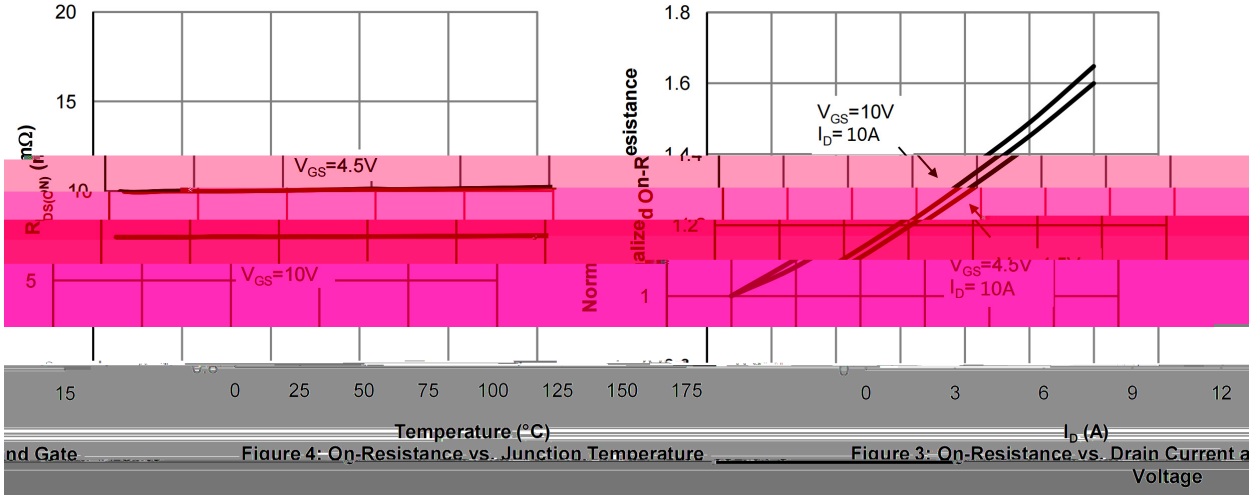
See Marking Instructions.

Parameter	Symbol	Rating		Unit
		N-channe	P-channell	
Drain-Source Voltage	V_{DSS}	30	-30	V
Gate-Source Voltage	V_{GSS}	±20		V
Continuous Drain Current	I_D	15.5	-11.5	A
Pulsed Drain Current	I_{DM}	49	-37	A
Power Dissipation	P_D	3.2	3	W
Junction and Storage Temperature Range	T_J,T_{STG}	-55 to +150		
Maximum Junction-to-Ambient	$R_{\theta JA}$	90		/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=250 A	30	35.5		V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=30V V_{GS}=0V			1.0	A
Gate-Body leakage current	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=250 A	1.0	1.8	2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=10V I_D=10A		7.5	8	m
		V_{GS}=4.5V I_D=10A		11	15	m
Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=1.0A			1.4	V
Input Capacitance	C_{iss}	V_{DS}=25V V_{GS}=0V f=1.0MHz		1170		pF
Output Capacitance	C_{oss}			110		pF
Reverse Transfer Capacitance	C_{rss}			100		pF
Gate resistance	Rg	V_{DS}=0V V_{GS}=0V f=1.0MHz		3.7		
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=10V V_{DS}=15V I_D=10A		40		nC
Total Gate Charge	$Q_{g(4.5V)}$			22		nC
Gate-Source Charge	Q_{gs}			11		nC
Gate-Drain Charge	Q_{gd}			5		nC
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=15 V V_{GS}=10V R_L=0.75 R_{GEN}=3		11		ns
Turn-On Rise Time	t_r			14		ns
Turn-Off Delay Time	$t_{d(off)}$			38		ns

Turn-OfTime (L)Tj10.4958 0 0 10.5 271.2 336.5004 Tm-.e1.48001 nT=1.0A ns





nd Gate Figure 4: On-Resistance vs. Junction Temperature Figure 3: On-Resistance vs. Drain Current a Voltage

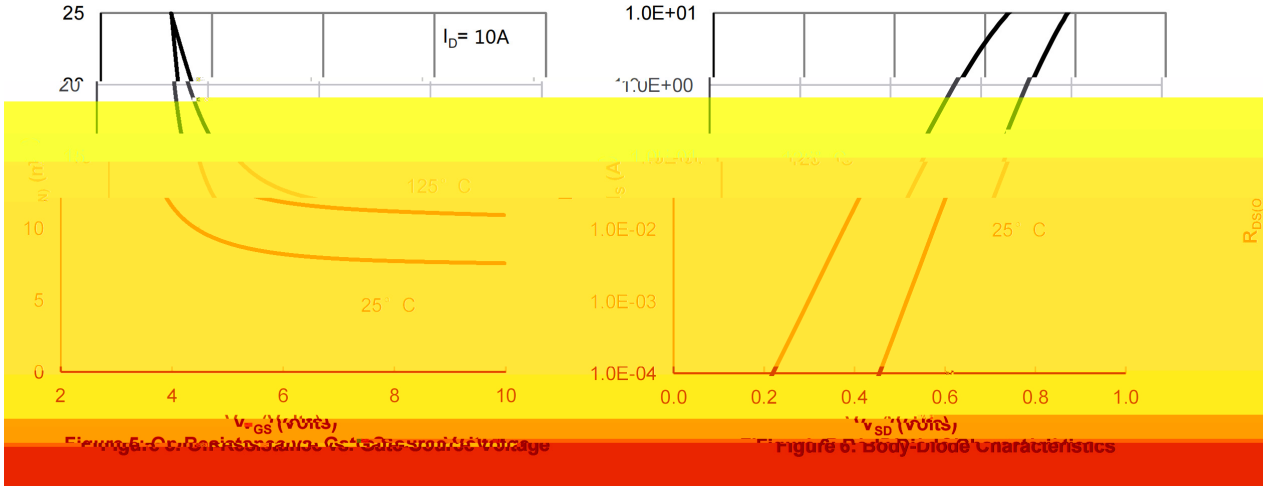


Figure 6: Body Diode Characteristics

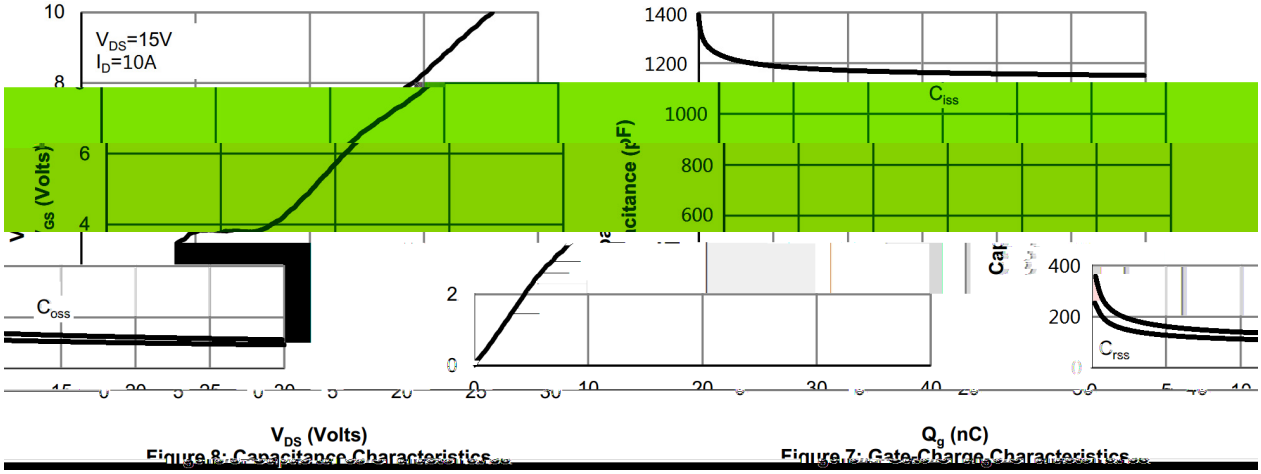
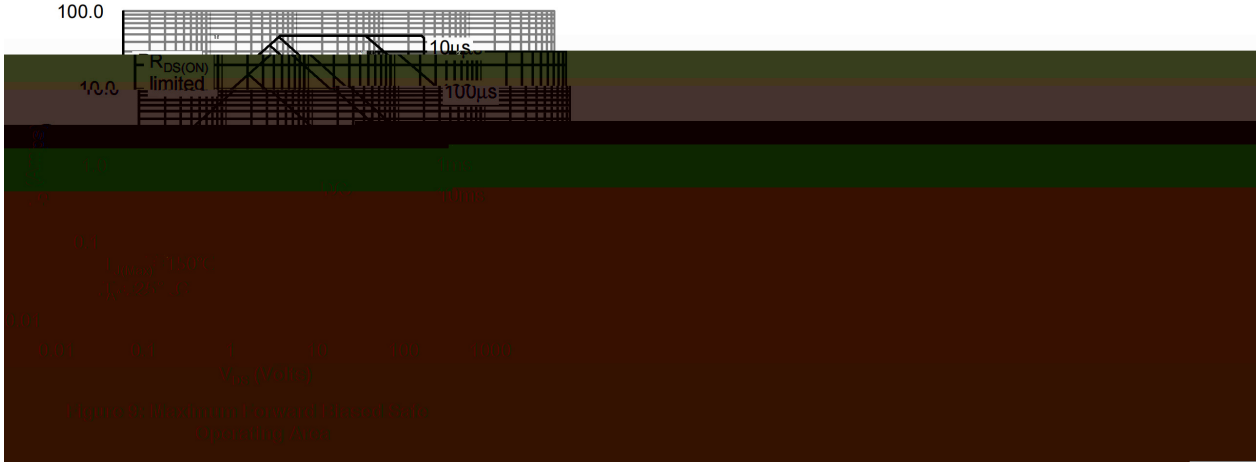


Figure 8: Capacitance Characteristics

Figure 7: Gate Charge Characteristics



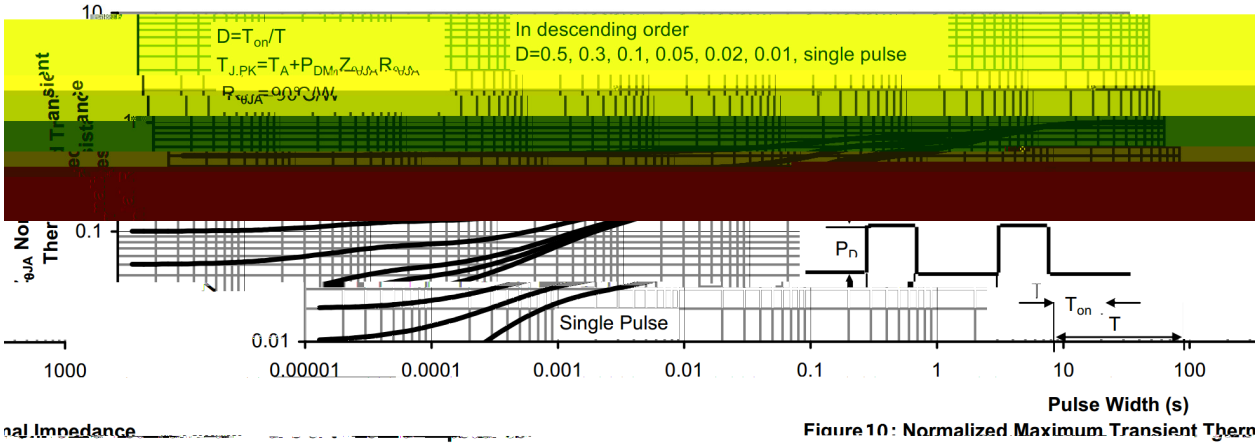
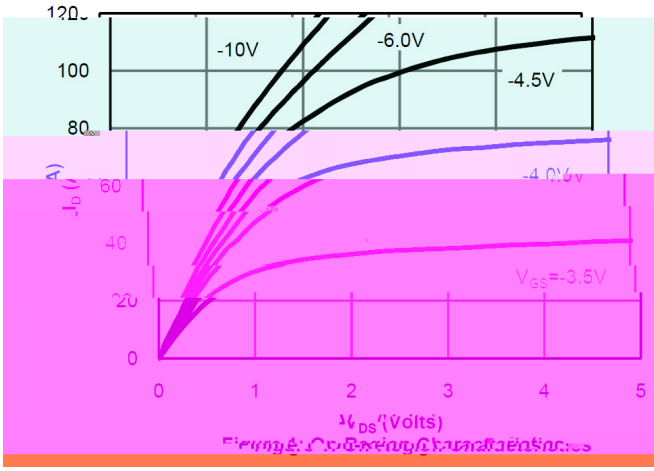
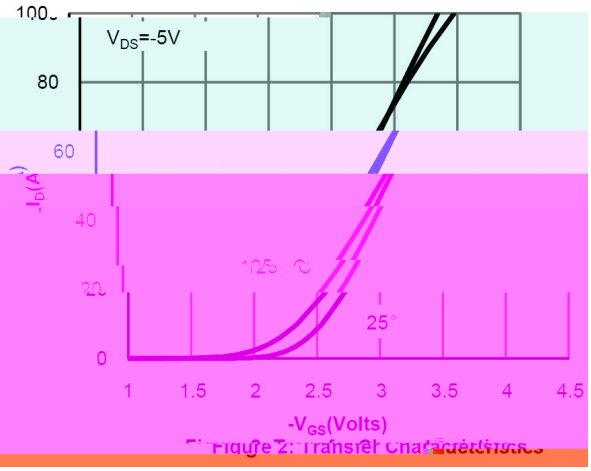


Figure 10: Normalized Maximum Transient Therm

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=-250 A	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-4030V_{GS}=0V			-1.0	A
Gate-Body leakage current	I_{GSS}	V_{GS}=±20V V_{DS}=0V			±100	nA
Gate Threshold Voltage	$V_{GS(th)}$	V_{DS}=V_{GS} I_D=-250 A	-1.0	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=-10V I_D=-10A		12	13	m
		V_{GS}=-4.5V I_D=-10A		17	20	m
Diode Forward Voltage	V_{SD}	V_{GS}=0V I_S=-1.0A			-1.4	V
Input Capacitance	C_{iss}	V_{DS}=-25V V_{GS}=0V f=1.0MHz		2100		pF
Output Capacitance	C_{oss}			1900		pF
Reverse Transfer Capacitance	C_{rss}			640		pF
Gate resistance	R_g	V_{DS}=0V V_{GS}=0V f=1.0MHz		4		
Total Gate Charge	$Q_{g(10V)}$	V_{GS}=-10V V_{DS}=-15V I_D=-10A		35		nC
Total Gate Charge	$Q_{g(4.5V)}$			17		nC
Gate-Source Charge	Q_{gs}			5.7		nC
Gate-Drain Charge	Q_{gd}			8.8		nC
Turn-On Delay Time	$t_{d(on)}$	V_{DS}=-15 V V_{GS}=-10V R_L=1 R_{GEN}=3		11		ns
Turn-On Rise Time	t_r			7.5		ns
Turn-Off Delay Time	$t_{d(off)}$			43.5		ns
Turn-Off Fall Time	t_f			17.5		ns





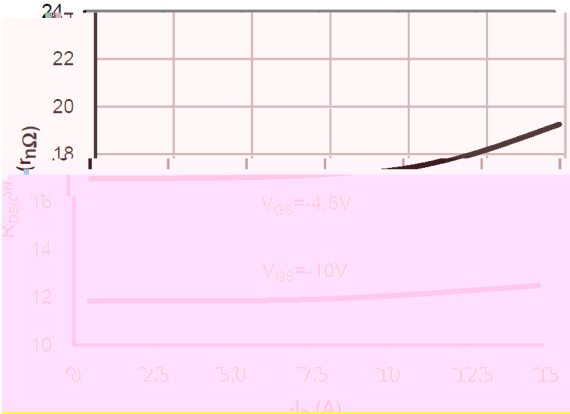


Figure 3: On-Resistance vs. Drain Current and Gate Voltage

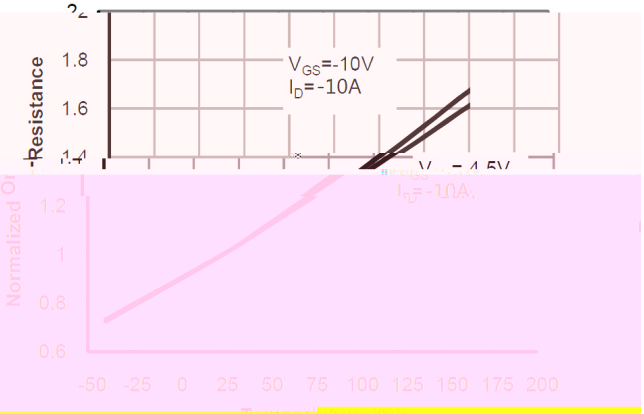


Figure 4: On-Resistance vs. Junction Temperature

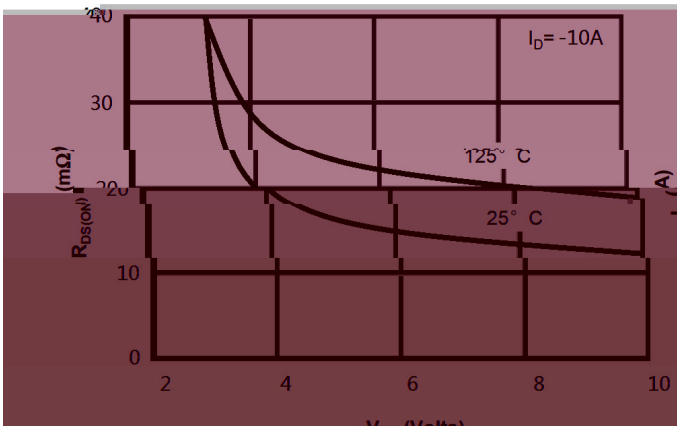


Figure 5: On-Resistance vs. Gate-Source Voltage

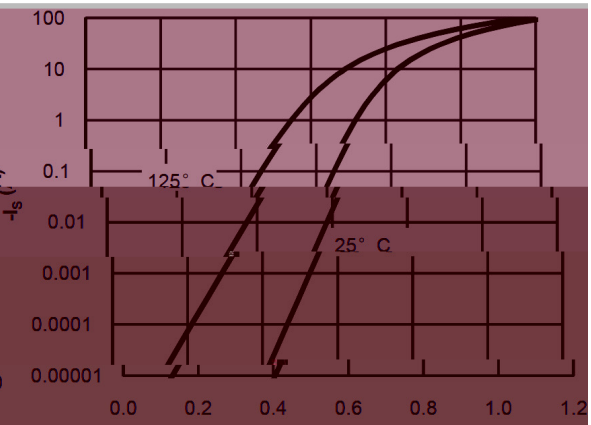


Figure 6: Body-Diode Characteristics

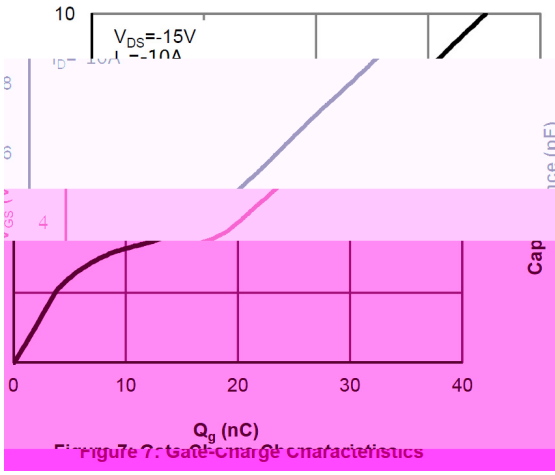


Figure 7: Gate-Charge Characteristics

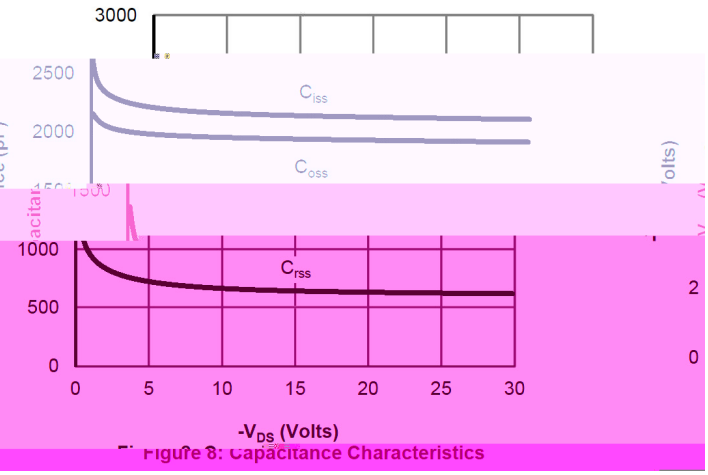
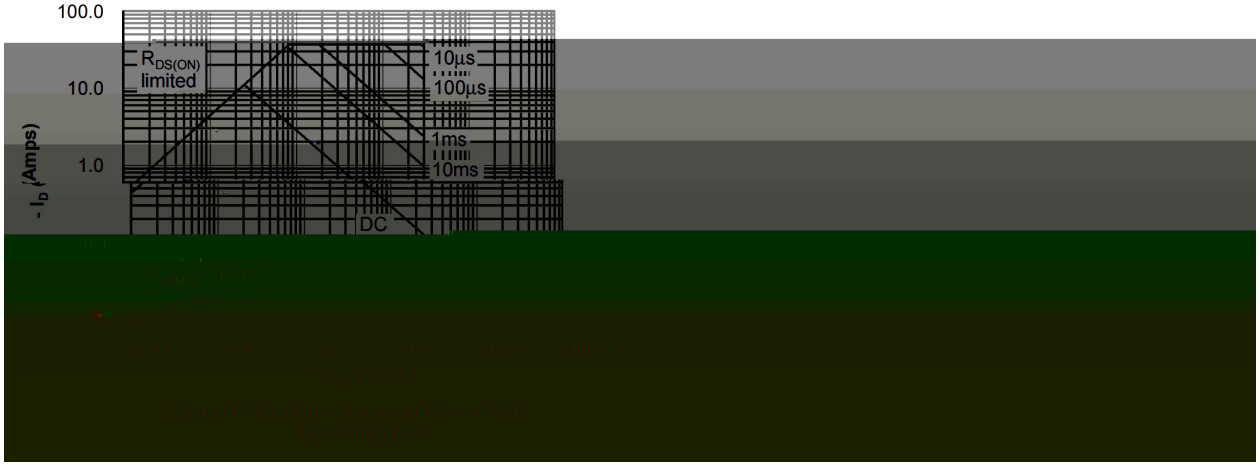
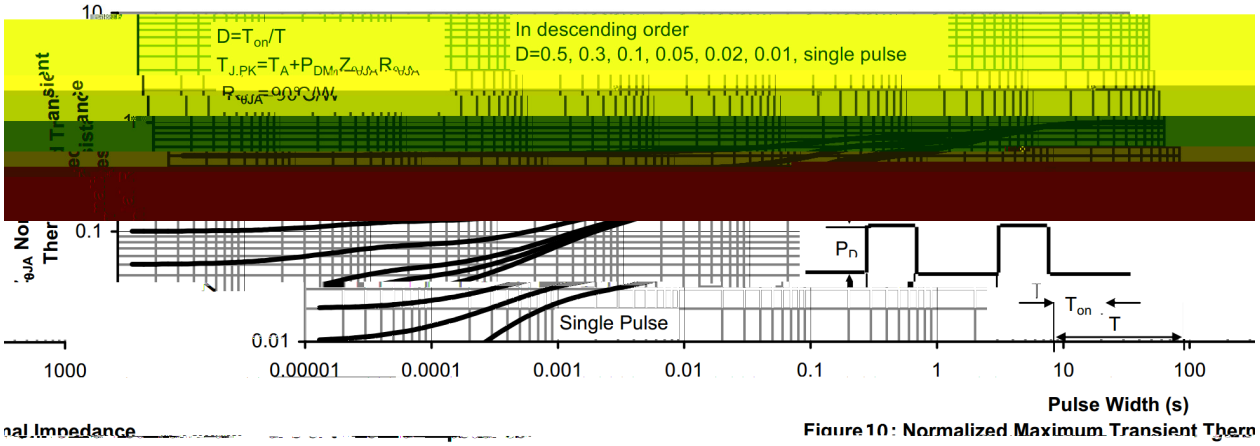


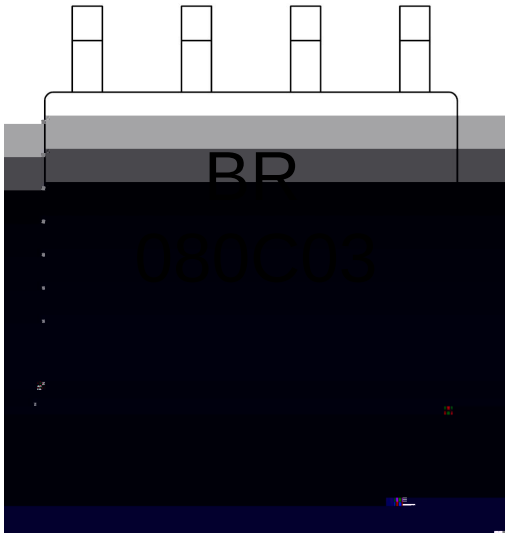
Figure 8: Capacitance Characteristics





nal Impedance

Figure 10: Normalized Maximum Transient Therm



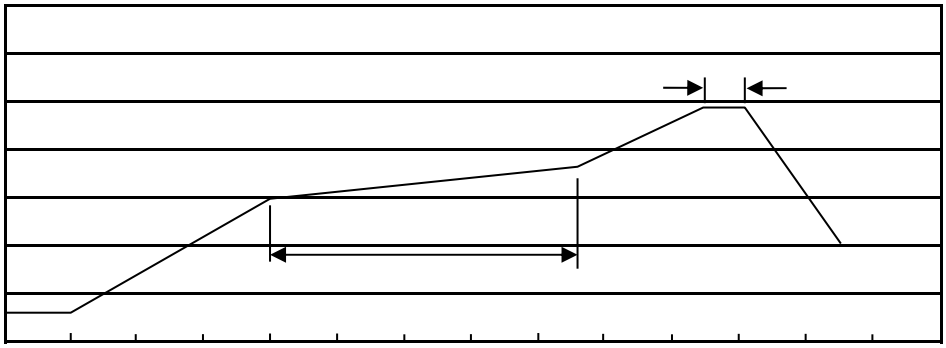
BR

080C03

****

Note:

BR:	Company Code
080C03:	Product Type
****:	Lot No. Code, code change with Lot No.



Note:

1 150 180 60 90sec;

1.Preheating:150~180 , Time:60~90sec.

2 245 5 5 0.5sec;

2.Peak Temp.:245 5 , Duration:5 0.5sec.

3 2 10 /sec.

3. Cooling Speed: 2~10 /sec.

260 5 10 1 sec. Temp.:260±5 Time:10±1 sec

/ REEL

Package Type	Units					Dimension		(unit mm³)
SOP/ESOP-8	4,000	2	8,000	6	48,000	13 ×12	360×360×50	380×335×366