/ Descriptions

SOP-8

Complementary Enhancement MOSFET in a SOP-8 Plastic Package.

/ Features

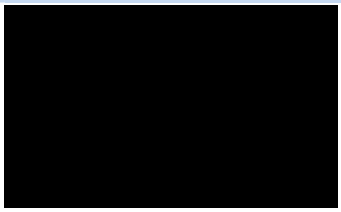
N-channel	P-channel
V_{DS}(V)=30V I_D=15.5A	V_{DS}(V)=-30V I_D=-11.5A
$R_{DS(ON)}$@10V<8mΩ(Typ.7.5mR)	$R_{DS(ON)}$@-10V<13mΩ(Typ.12mR)
$R_{DS(ON)}$@4.5V<15mΩ(Typ.11mR)	$R_{DS(ON)}$@-4.5V<20mΩ(Typ.17mR)

HF Product.

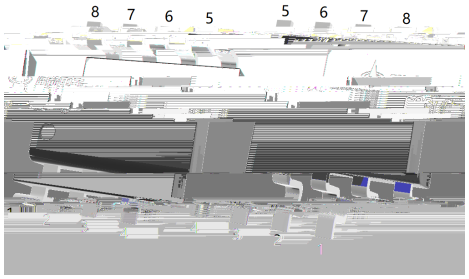
/ Applications

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

/ Equivalent Circuit



/ Pinning



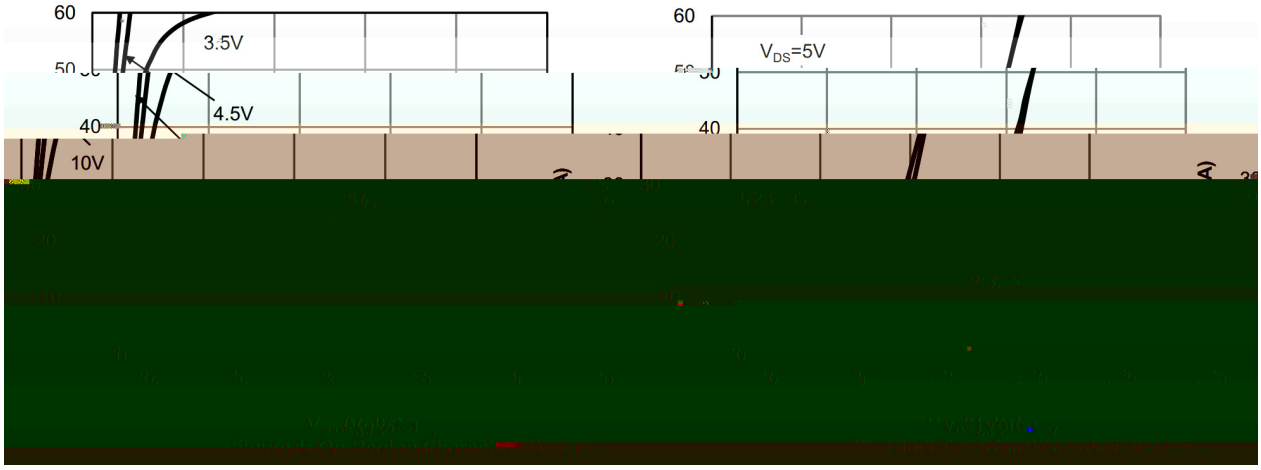
PIN1	S1	PIN 2	G1	PIN 3	S2	PIN 4	G2
PIN 5	D2	PIN 6	D2	PIN 7	D1	PIN 8	D1

/ Marking

See Marking Instructions.

BRCS080C03SC

N- / N-CHANNEL Electrical Characteristic Curve



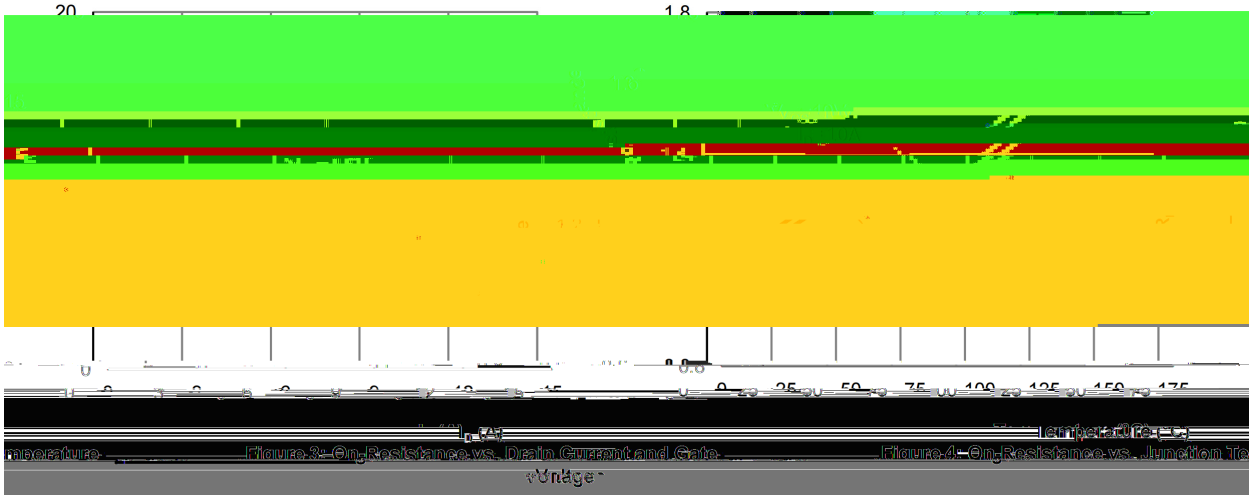
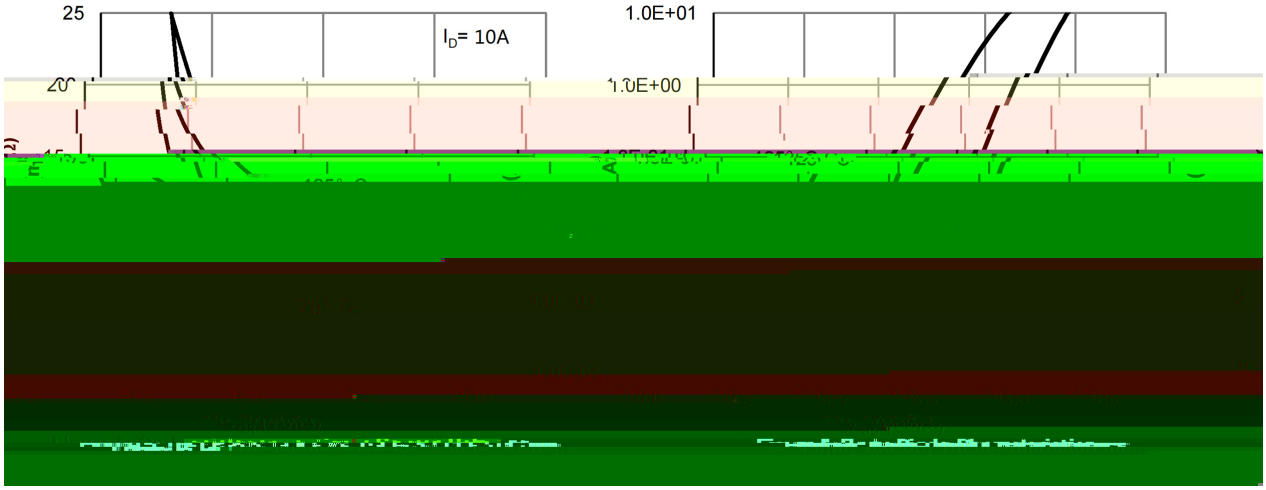
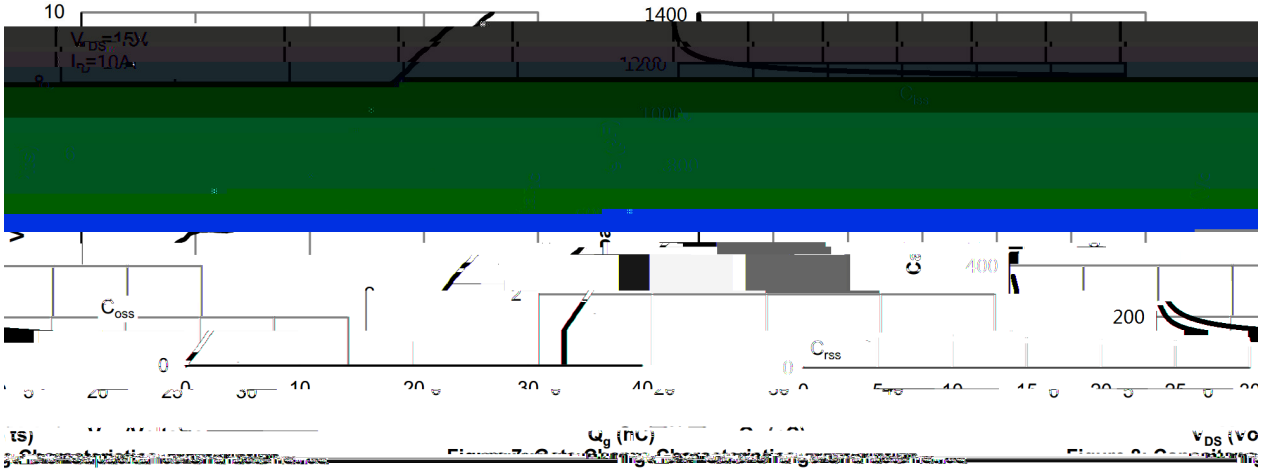


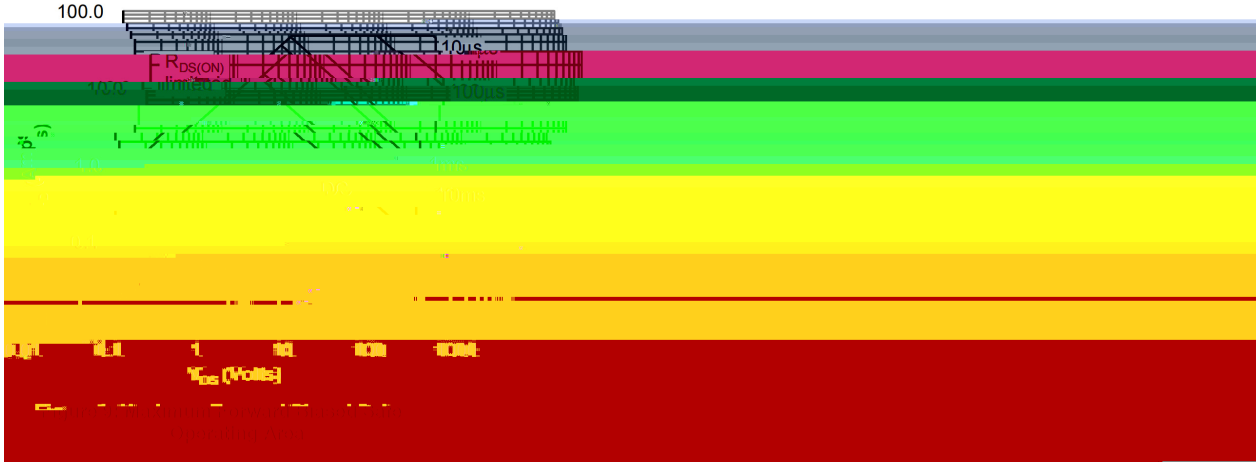
Figure 3 On-Resistance vs. Drain Current and Gate Voltage

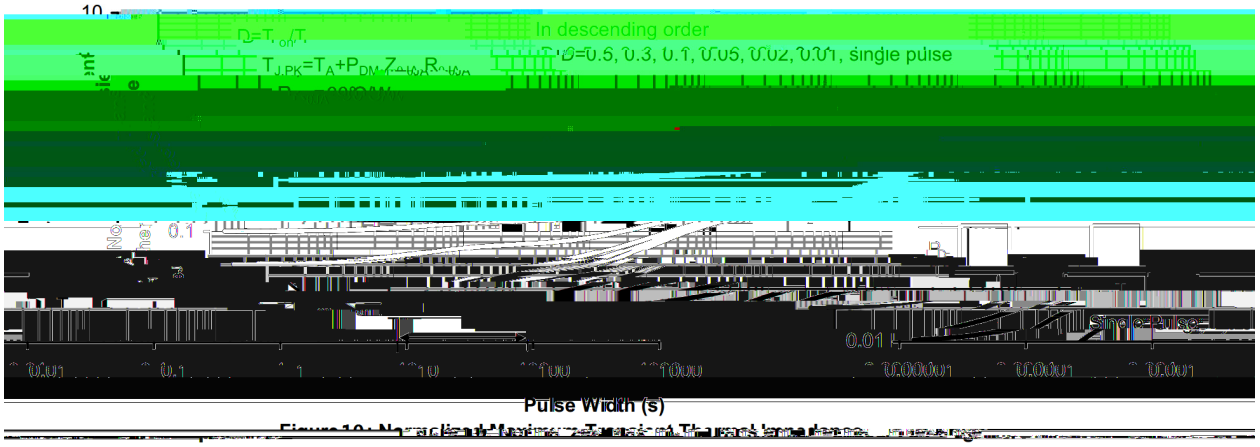
Figure 4 On-Resistance vs. Junction Temperature



N- / N-CHANNEL Electrical Characteristic Curve



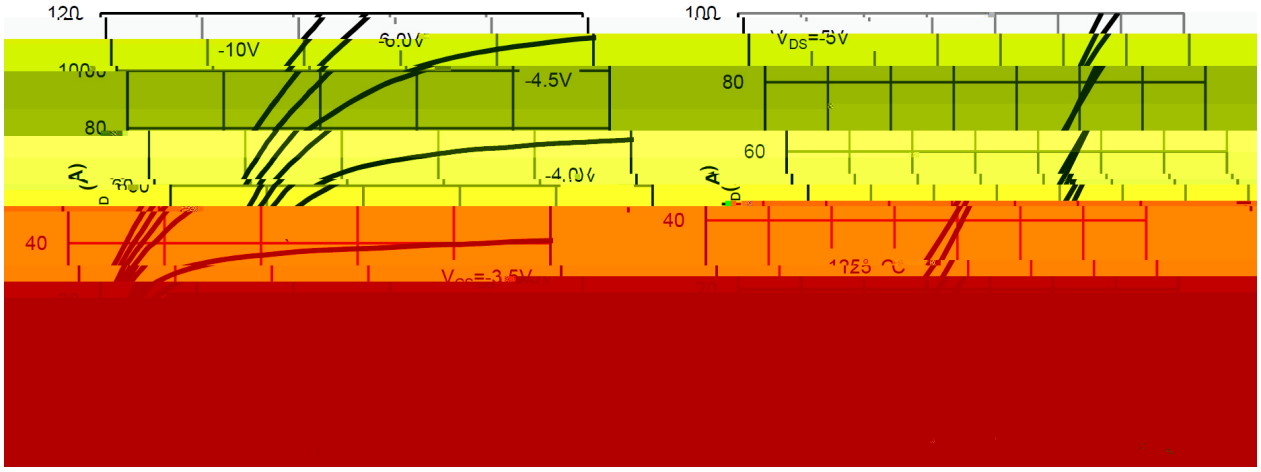


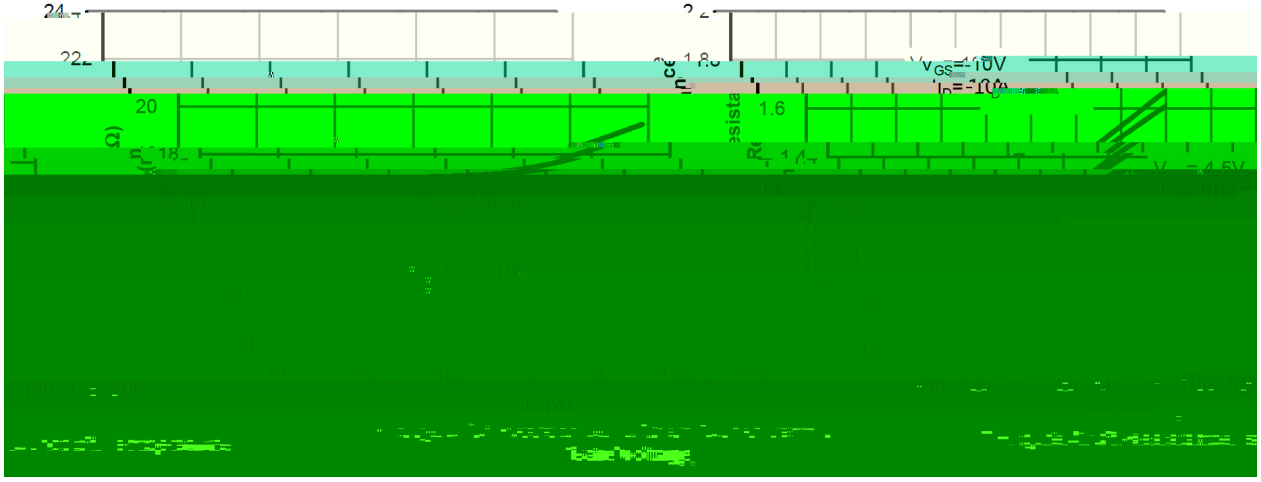


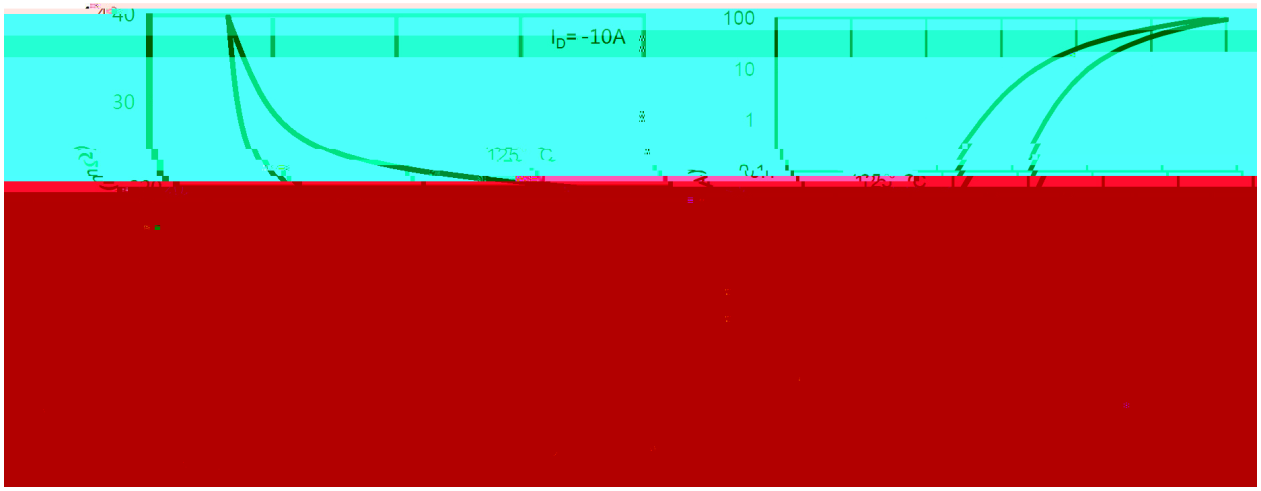
P- /P-CHANNEL Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	V_{GS}=0V I_D=-250μA	-30			V
Zero Gate Voltage Drain Current	I_{DSS}	V_{DS}=-4030V_{GS}=0V			-1.0	μA
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=-250μA	-1.0	-1.5	-2.5	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	V_{GS}=-10V I_D=-10A		12	13	mΩ
		V_{GS}=-4.5V I_D=-10A		17	20	mΩ
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		Ω
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=1Ω R_{GEN}=3Ω		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

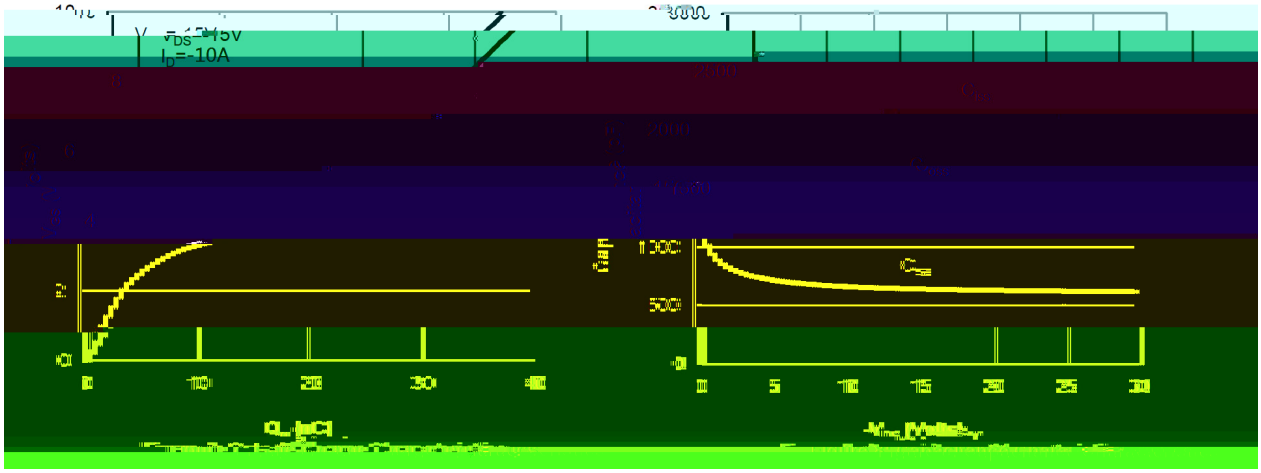
P- / P-CHANNEL Electrical Characteristic Curve

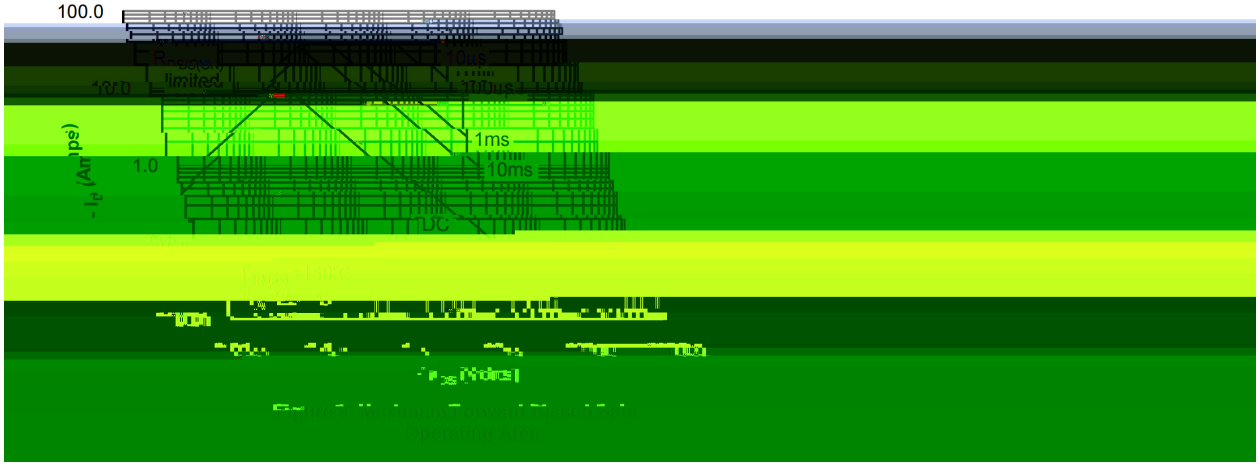


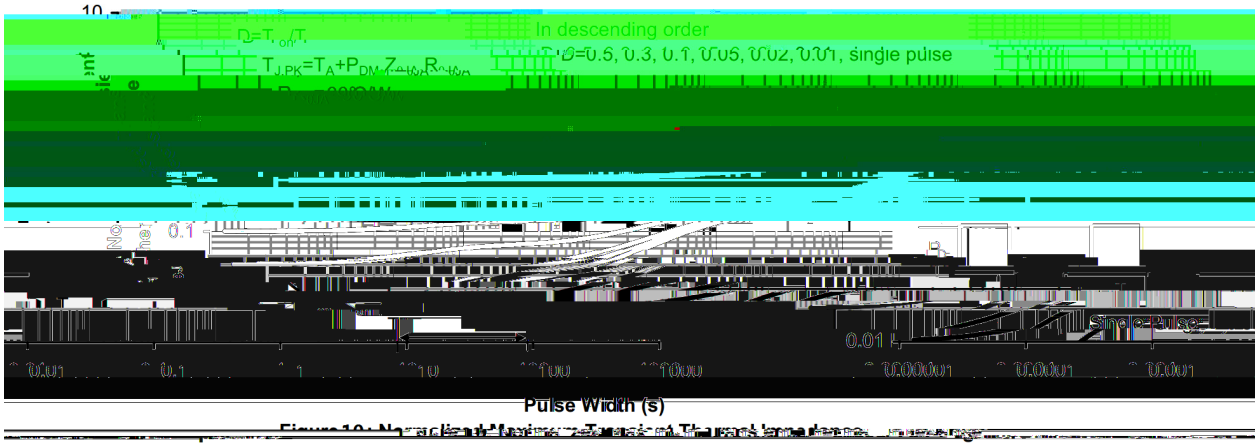




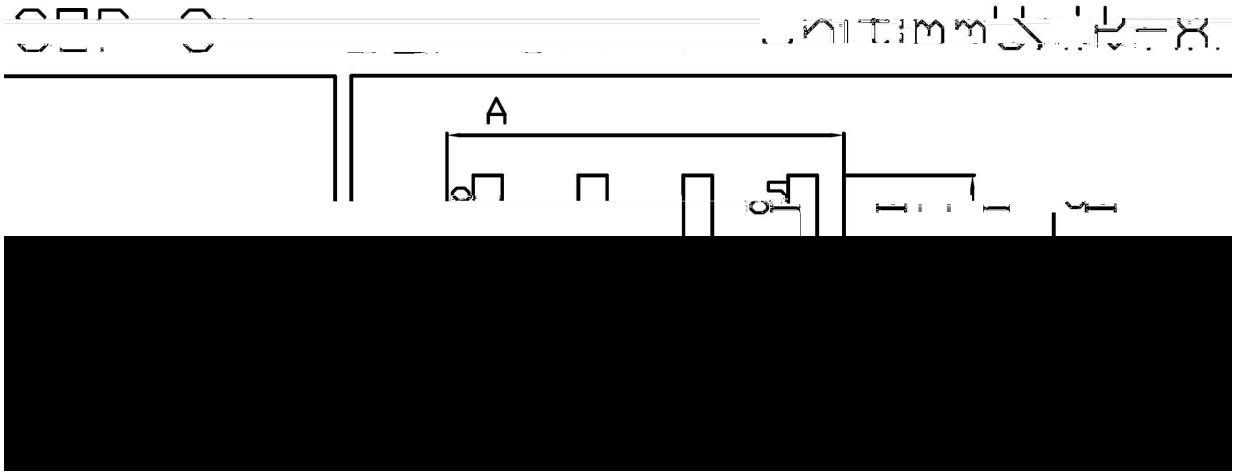
P- / P-CHANNEL Electrical Characteristic Curve







/ Package Dimensions



BRCS080C03SC
C.Rba.y2295.6(..rb0.1(A)27758( )273.5(A)222.4(u.rba.g.rba...rb0.1(-.rb1.9(2.rba.0)21841(2.r

š WD t … • Ž ¢ (x /) / : K S V K X G Z [X K 6 X U L O R K L U X / 8 8 K L R U] 9 U R J K X O T M 6

ª ¢ y

1o• Ä ½ “ † 150 ½180 - k ž • 60 ½90sec;

2o• Q › “ † 245 r 5 - k ž • 4 Ò 5 r 0.5sec;

3o•D N ò i Ò 0 , † 2 ½10 - /sec.

Note:

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

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

3. Cooling Speed: 2~10 - /sec.

ÂD /Cã p ¯ »] / Resistance to Soldering Heat Test Conditions

“ † y 260 r 5 - ž • y 10 r 1 sec. Temp.:260±5 Time:10±1 sec

G P á / Packaging SPEC.

2 & x / REEL

Package Type 7>û ˜ E	Units ;>û ¦H	Dimension ;>û p . (unit ÆEmm³)