

SOT23-3 P MOS

- CHANNEL MOSFET in a SOT23-3 Plastic Package.

$$V_{DS} (V) = -20V \quad I_D = -7A$$

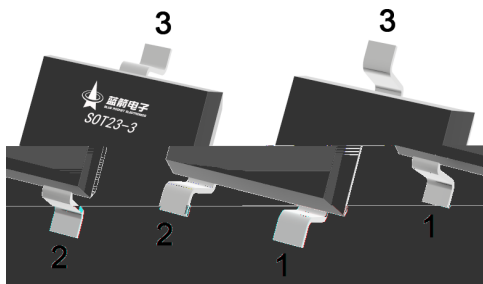
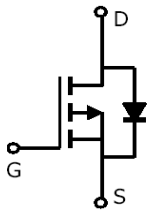
$$R_{DS(ON)} @ -4.5V(Typ.) = 18m$$

$$R_{DS(ON)} @ -2.5V(Typ.) = 20m$$

$$R_{DS(ON)} @ -1.8V(Typ.) = 27m$$

。 HF Product.

Power Management in Notebook computer, Portable Equipment and Battery powered systems.



PIN1 G PIN 2 S PIN 3 D

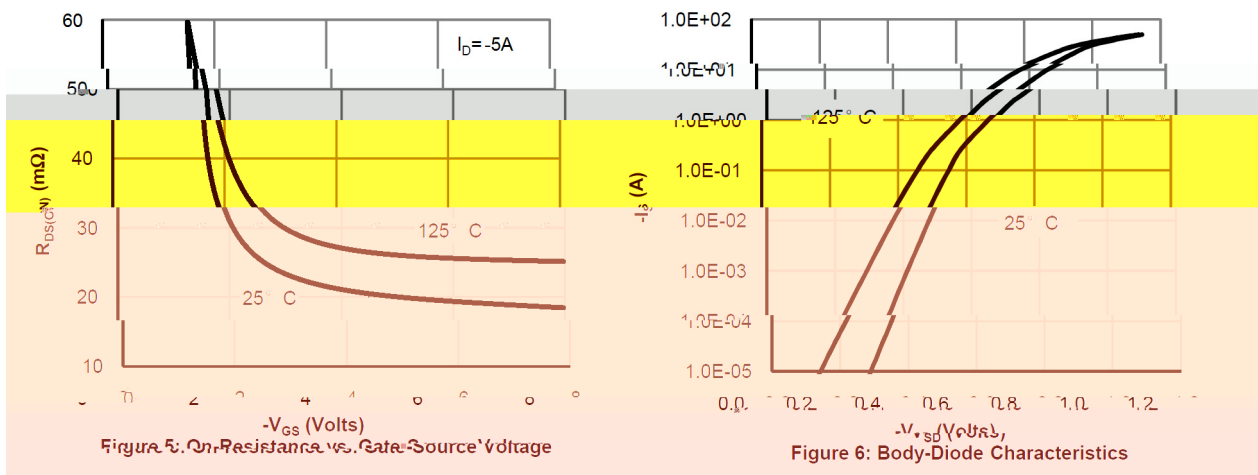
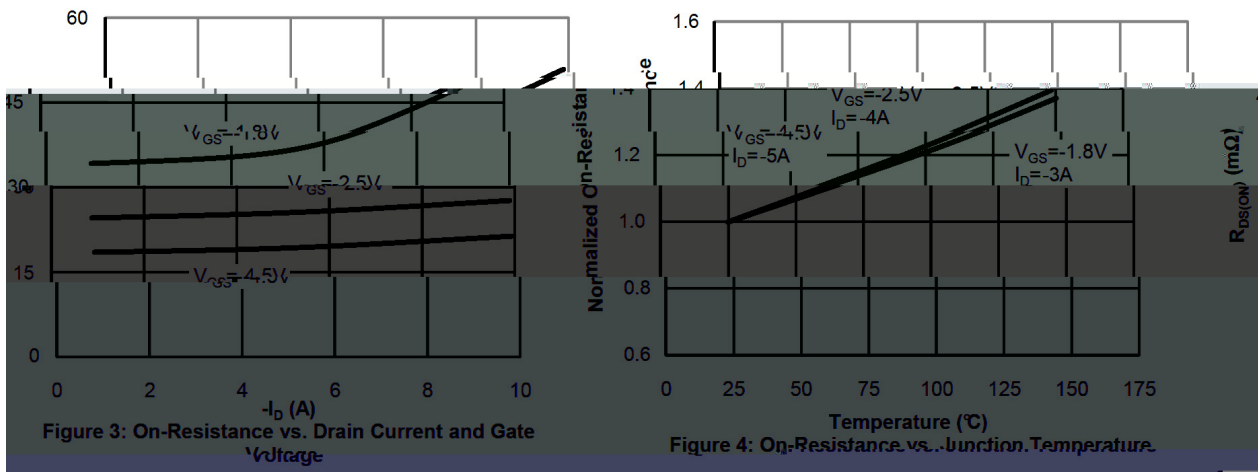
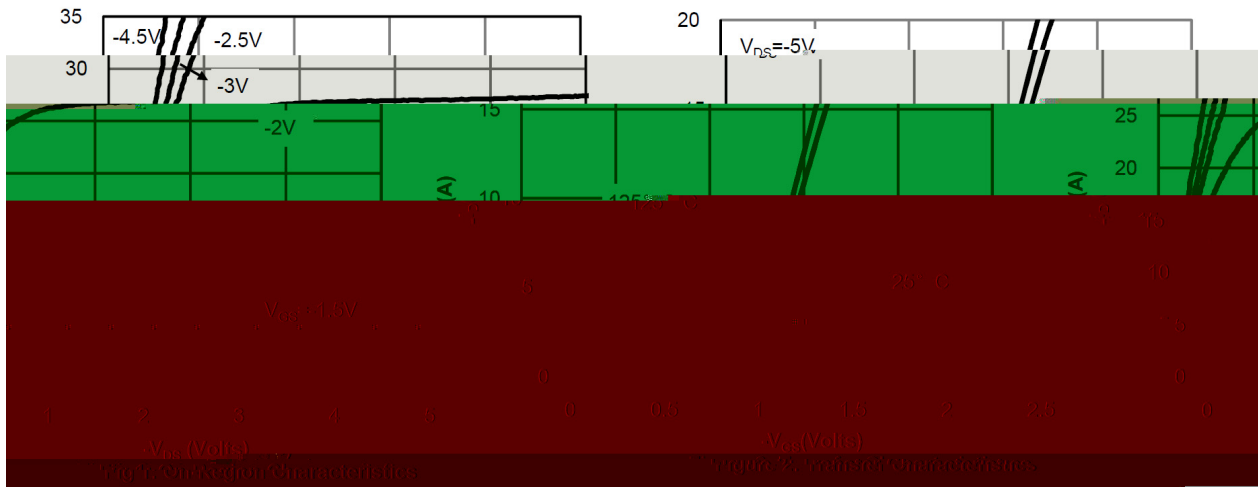
Marking

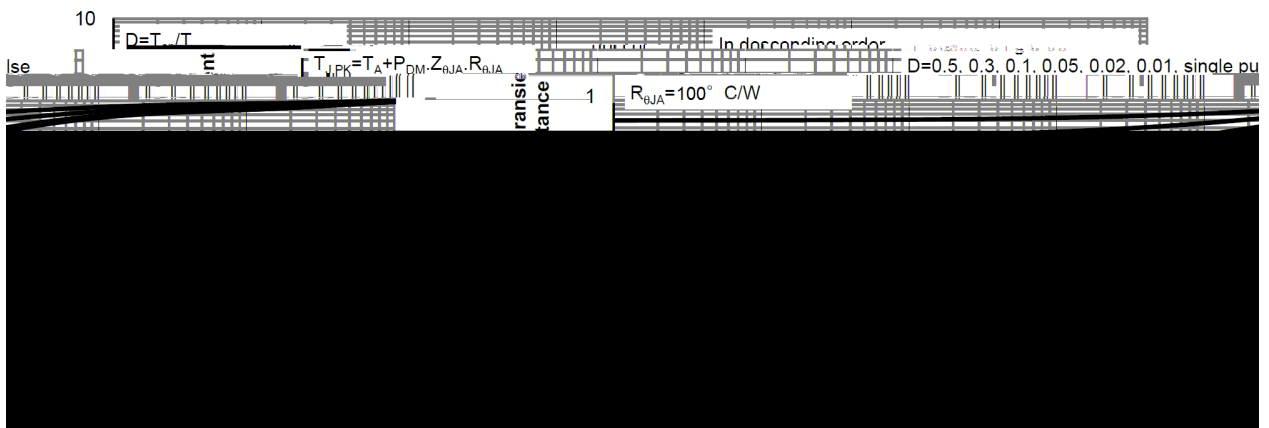
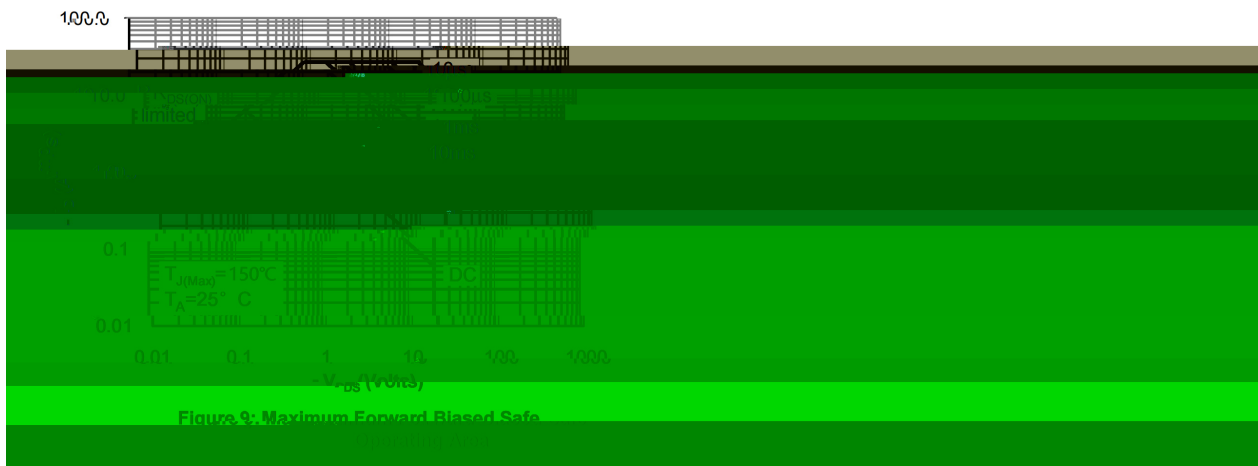
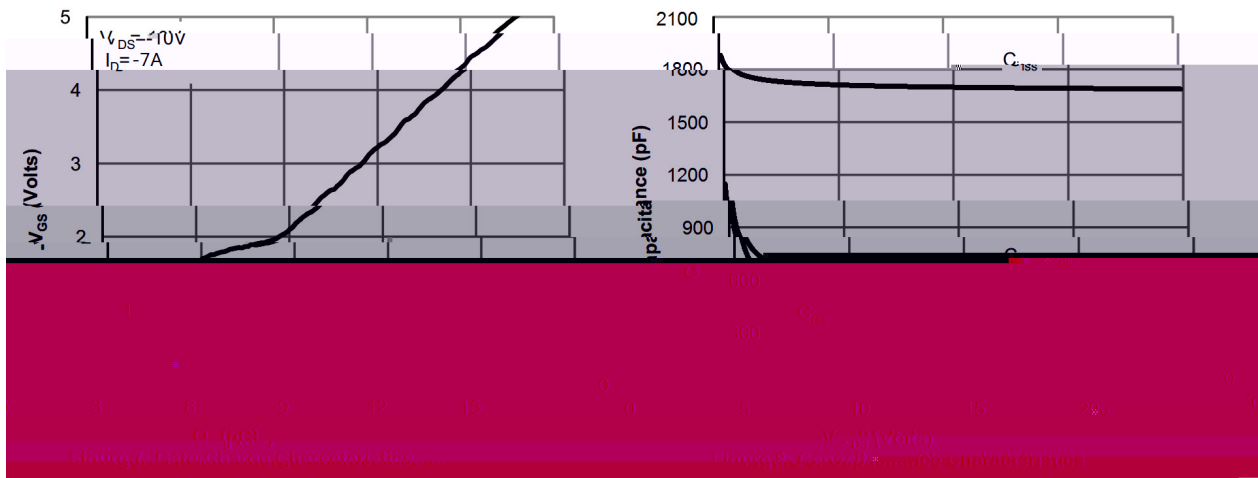
C4H

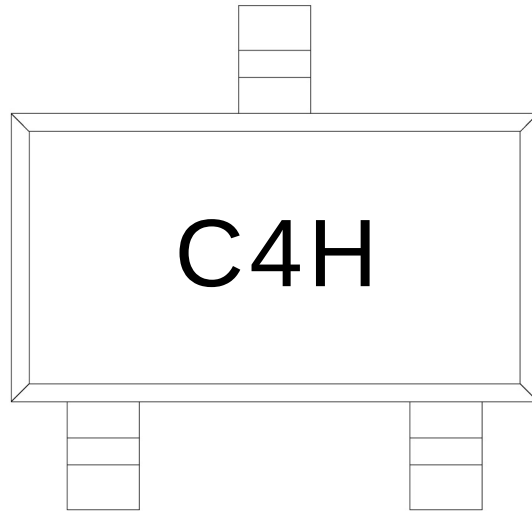
Parameter		Symbol	Rating	Unit
Drain-Source Voltage		V_{DS}	-20	V
Gate-Source Voltage		V_{GS}	± 12	V
Continuous Drain Current		I_D	-7.0	A
Pulsed Drain Current		I_{DM}	-30	A
Power Dissipation for Single Operation		P_D	1.25	W
Maximum Junction Temperature		T_j	150	
Storage Temperature Range		T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	t 10s	R_{JA}	100	/W
	Steady State		130	/W
Thermal Resistance-Junction to Lead	Steady State	R_{JL}	80	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D = -250\text{ A}$ $V_{GS} = 0V$	-20	-23		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -20V$ $V_{GS} = 0V$			-1.0	A
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0V$ $V_{GS} = \pm 12V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\text{ A}$	-0.5	-0.7	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4.5V$ $I_D = -7A$		18	22	m
		$V_{GS} = -2.5V$ $I_D = -4A$		20	30	
		$V_{GS} = -1.8V$ $I_D = -3A$		27	100	
Diode Forward Voltage	V_{SD}	$I_S = -1A$ $V_{GS} = 0V$			-1.2	V
Gate resistance	R_g	$V_{GS} = 0V$, $f = 1MHz$ $V_{DS} = 0V$,		11		
Input Capacitance	C_{iss}	$V_{GS} = 0V$ $V_{DS} = -5V$ $f = 1MHz$		1700		pF
Output Capacitance	C_{oss}			600		
Reverse Transfer Capacitance	C_{rss}			450		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V, \quad V_{DS}=-10V, \quad I_D=-7A$		13		nC
Gate Source Charge	Q_{gs}			2.5		
Gate Drain Charge	Q_{gd}			4.2		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V \quad R_L=1.25 \quad V_{DS}=-10V \quad R_{GEN}=3$		7.5		ns
Turn-On Rise Time	t_r			29.2		
Turn-Off Delay Time	$t_{d(off)}$			103		
Turn-Off Fall Time	t_f			50		







C4

H

Note:

C4: Product Type Code

H: Company Code

Temperature Profile for IR Reflow Soldering(Pb-Free)

- 1

150 180

60 90sec;
- 2

245 5

5 0.5sec;
- 3

2 10 /sec.
- Note:

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

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

3. Cooling Speed: 2~10 /sec.

260 5

10 1 sec.

Temp.:260±5

Time:10±1 sec

/ REEL