

/ Descriptions

SOT-23 N MOS

N- CHANNEL MOSFET in a SOT-23 Plastic Package.

/ Features $V_{DS}=600V$; $I_D=80mA$ $R_{DS(on)1}@10V \leq 100\Omega$ $R_{DS(on)2}@4.5V \leq 290\Omega$

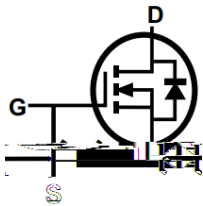
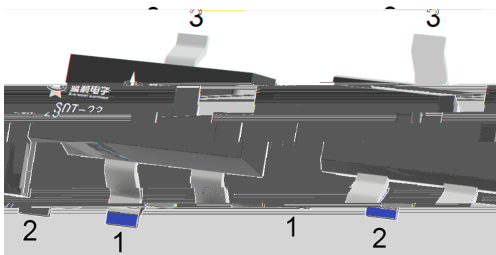
ESD Protected

HF Product.

/ Applications

DC-DC

Motor Control, Backlighting, DC-DC Converters, Power Management Functions.

/ Equivalent Circuit**/ Pinning**

PIN1 G PIN 2 S PIN 3 D

/ Marking

See Marking Instructions.

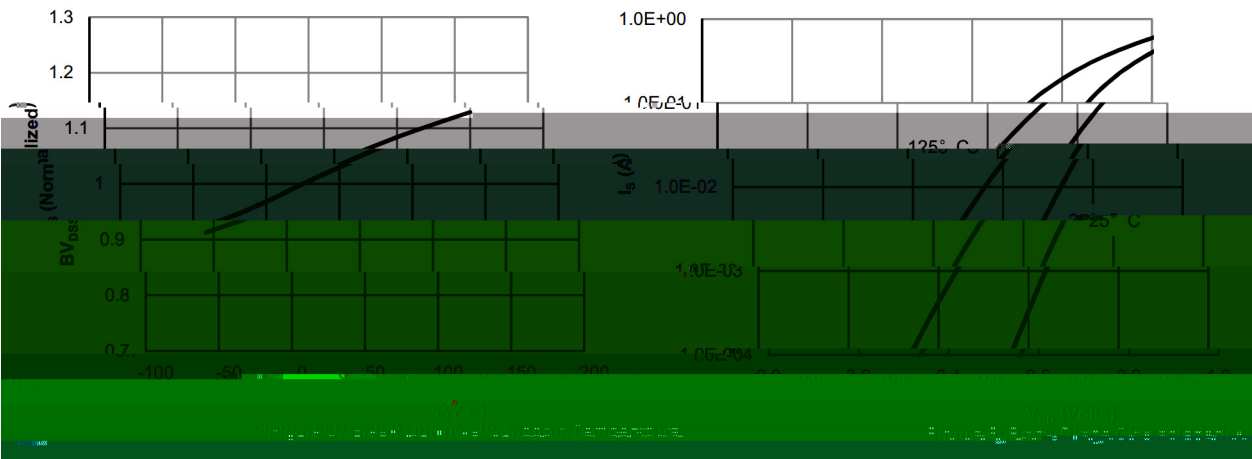
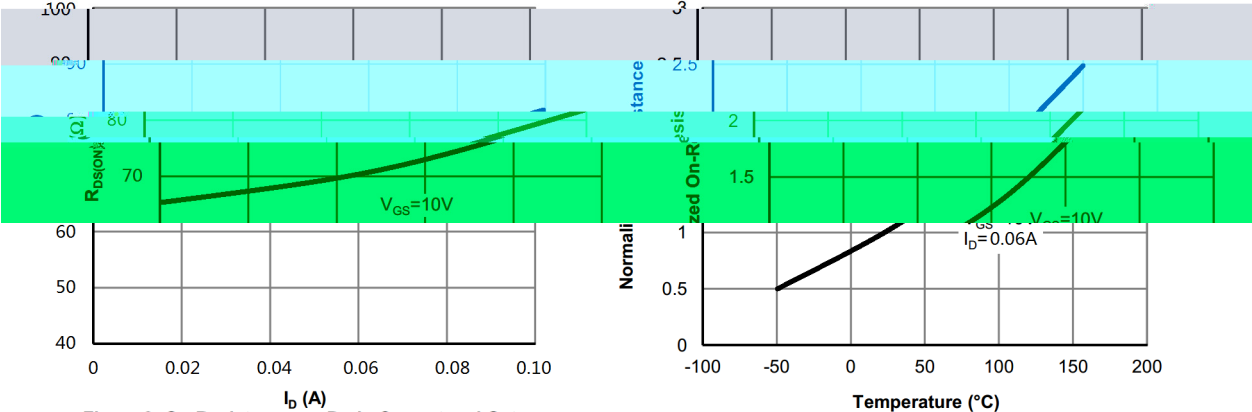
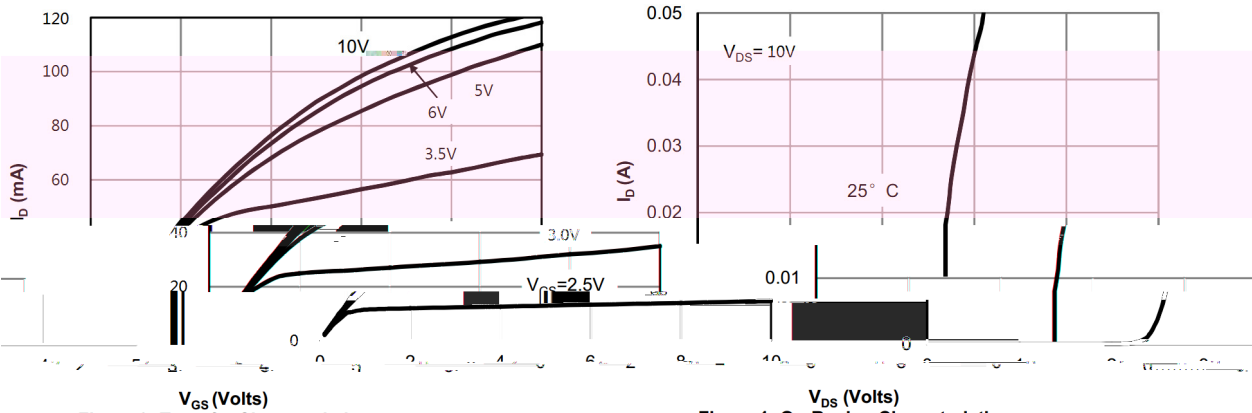
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	600	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current – Continuous	I_D	80	mA
Pulsed Drain Current	I_{DM}	200	mA
Power Dissipation	P_D	0.7	W
Operating and Storage Temperature Range	T_J, T_{stg}	-55 to 150	
Junction-to-Ambient	$R_{\theta JA}$	174	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain–Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS}=0V$ $I_D=250\mu A$	600	670		V
Gate Threshold Voltage	$V_{GS(th)1}$	$V_{DS}=V_{GS}$ $I_D=8\mu A$	1.5		2.6	V
	$V_{GS(th)2}$	$V_{DS}=V_{GS}$ $I_D=250\mu A$	1.5		3.0	V
Static Drain–Source On–Resistance	$R_{DS(on)1}$	$V_{GS}=10V$ $I_D=60mA$		72	100	Ω
	$R_{DS(on)2}$	$V_{GS}=4.5V$ I_D				

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=10V$ $V_{DS}=300V$ $I_D=60mA$ $R_{GEN}=3.3\Omega$		7.3		ns
Turn-On Rise Time	t_r			11		
Turn-Off Delay Time	$t_{d(off)}$			21		
Turn-Off Fall Time	t_f			159		
Reverse Recovery Time	T_{rr}	$V_R=300V$ $I_F=60Ma$ $Di/dt=100A/\mu s$		195		ns
Reverse Recovery Charge	Q_{rr}			32.5		nC

Electrical Characteristic Curve



/ Electrical Characteristic Curve

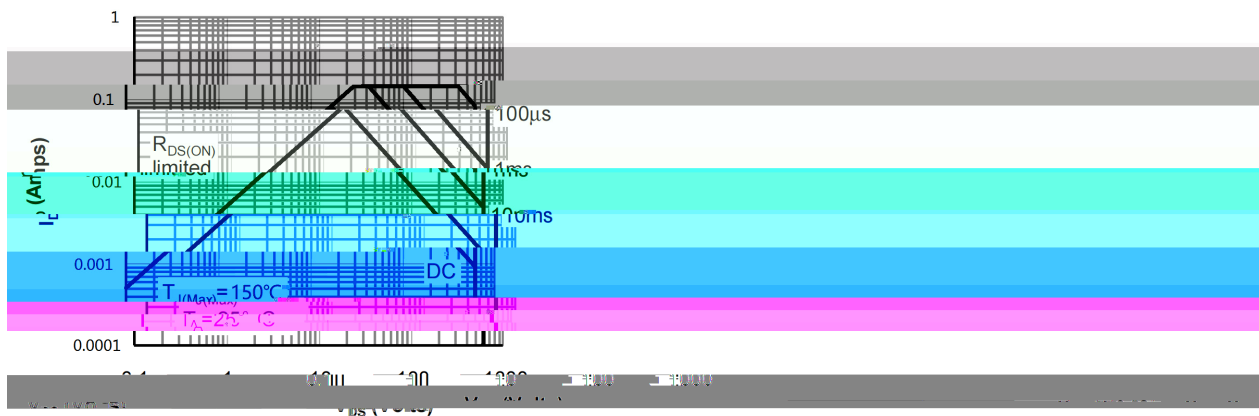
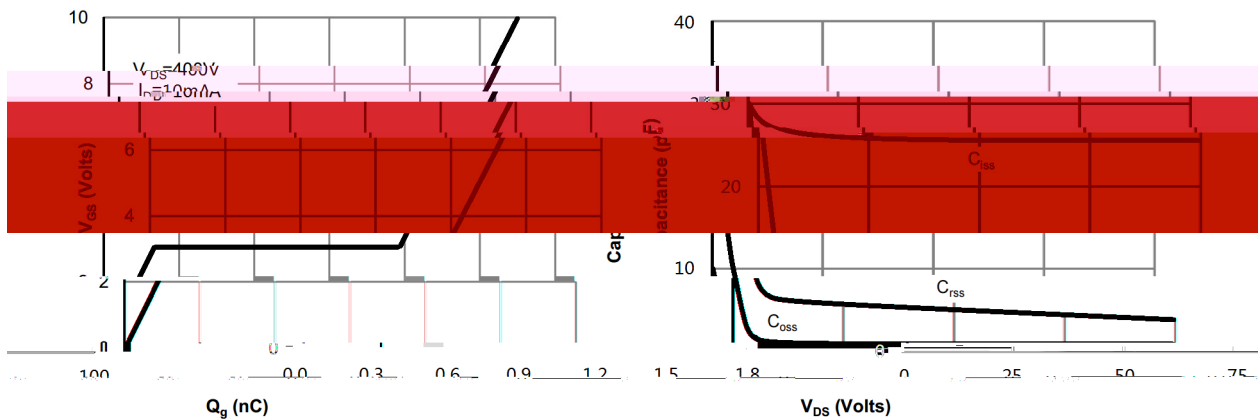


Figure 9: Maximum Forward Biased Safe

Operating Area

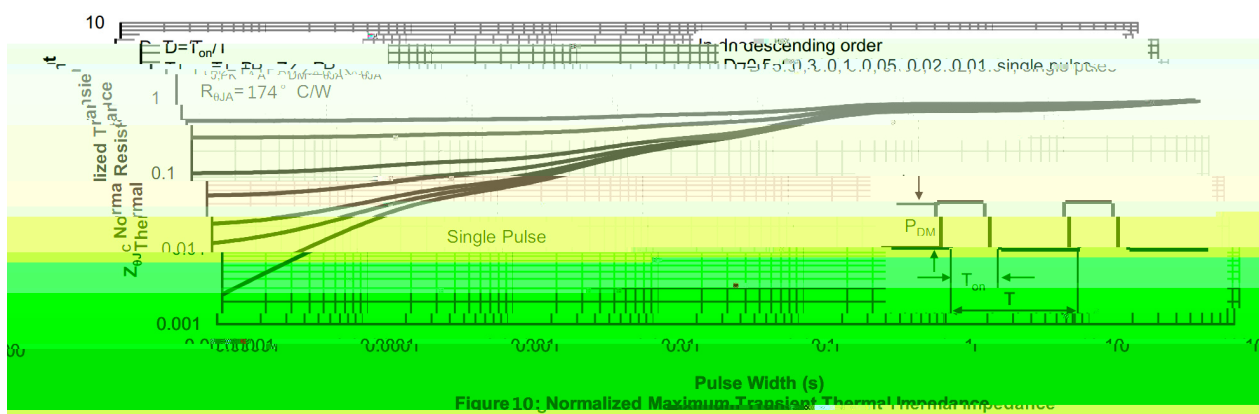
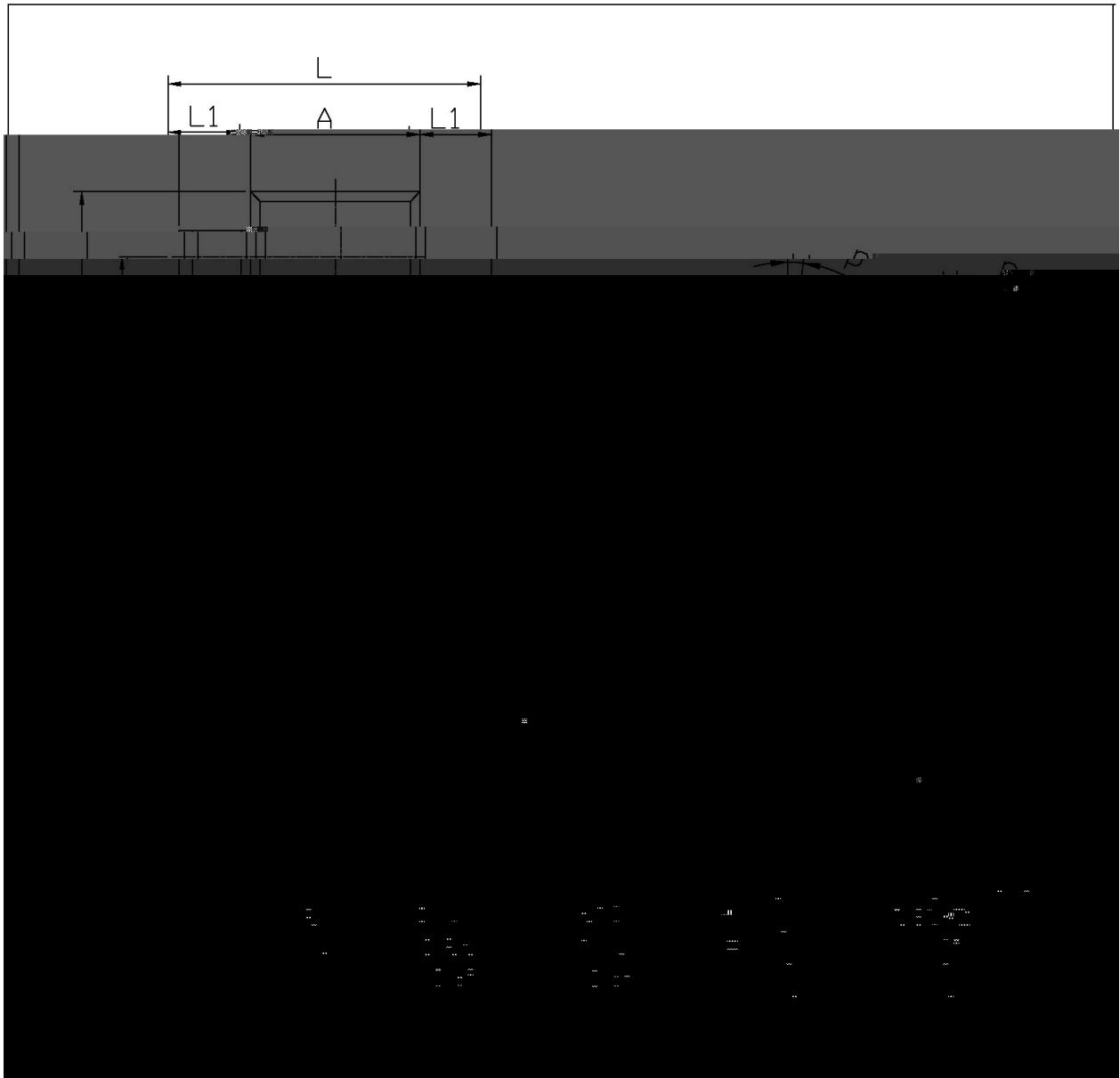


Figure 10: Normalized Maximum Transient Thermal Impedance

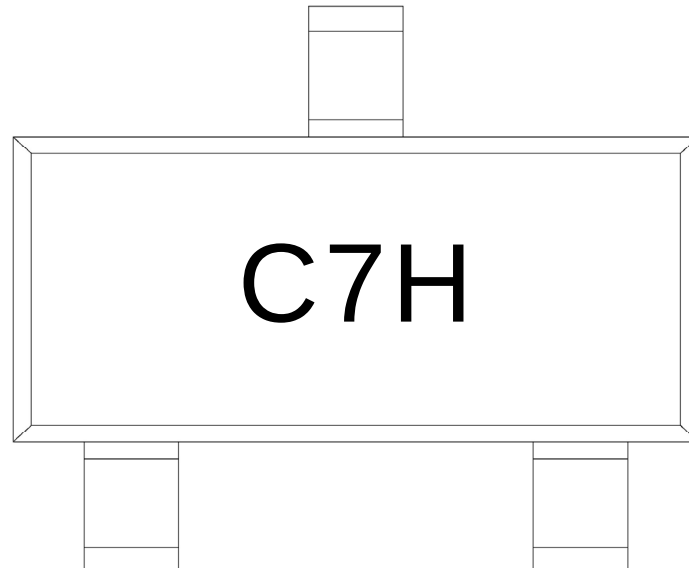
/ Package Dimensions

SOT-23

单位: mm



/ Marking Instructions



H

C7

Note:

H: Company Code

C7: Product Type Code

() / Temperature Profile for IR Reflow Soldering(Pb-Free)

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. |

/ Resistance to Soldering Heat Test Conditions

260±5	10±1 sec.	Temp.:260±5	Time:10±1 sec
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/ Packaging SPEC.

/ REEL

Package Type	Units					Dimension (unit mm ³)		
	Units/Reel	Reels/Inner Box	Units/Inner Box	Inner Boxes/Outer Box	Units/Outer Box	Reel	Inner Box	Outer Box