

Rev.A Dec.-2023

SOT23-6 P MOS

P- CHANNEL MOSFET in a SOT23-6 Plastic Package.

$V_{DS} (V) = -12V$ $I_D = -8.0A$

$R_{DS(ON)} @ -10V \leq 20m\Omega$ (Type.18m Ω)

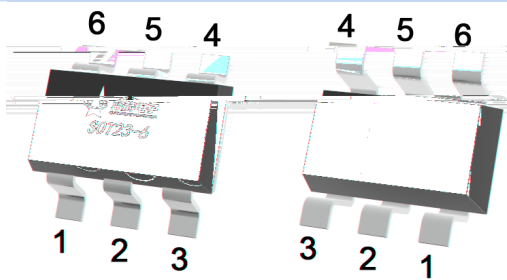
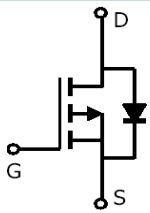
$R_{DS(ON)} @ -4.5V \leq 25m\Omega$ (Type.21m Ω)

$R_{DS(ON)} @ -2.5V \leq 30m\Omega$ (Type.27m Ω)

$R_{DS(ON)} @ -1.8V \leq 50m\Omega$ (Type.40m Ω)

。 HF Product.

PWM applications, Load switch, Power management.



PIN1 2 5 6 D

PIN 3 G

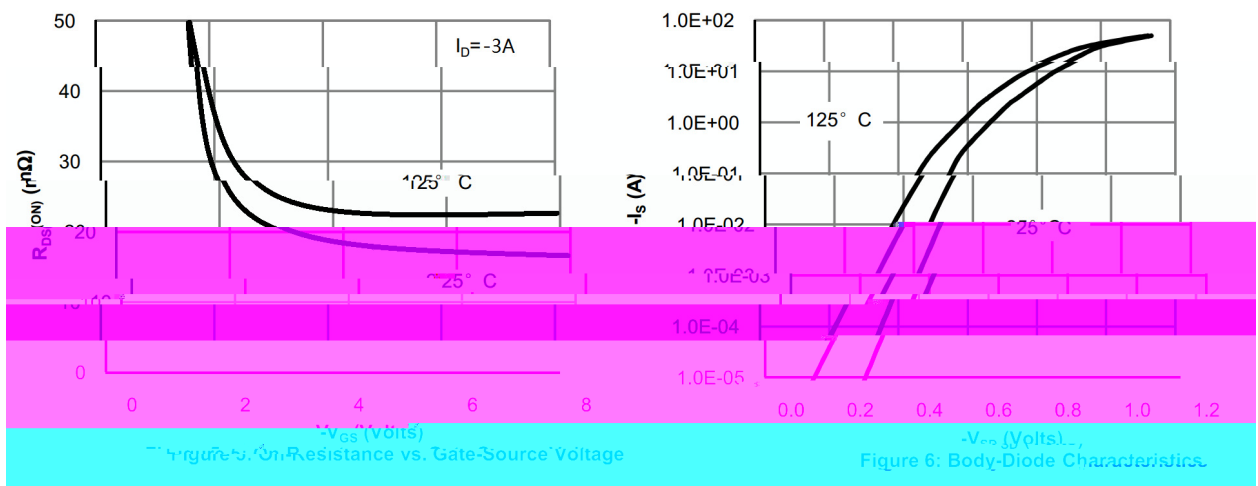
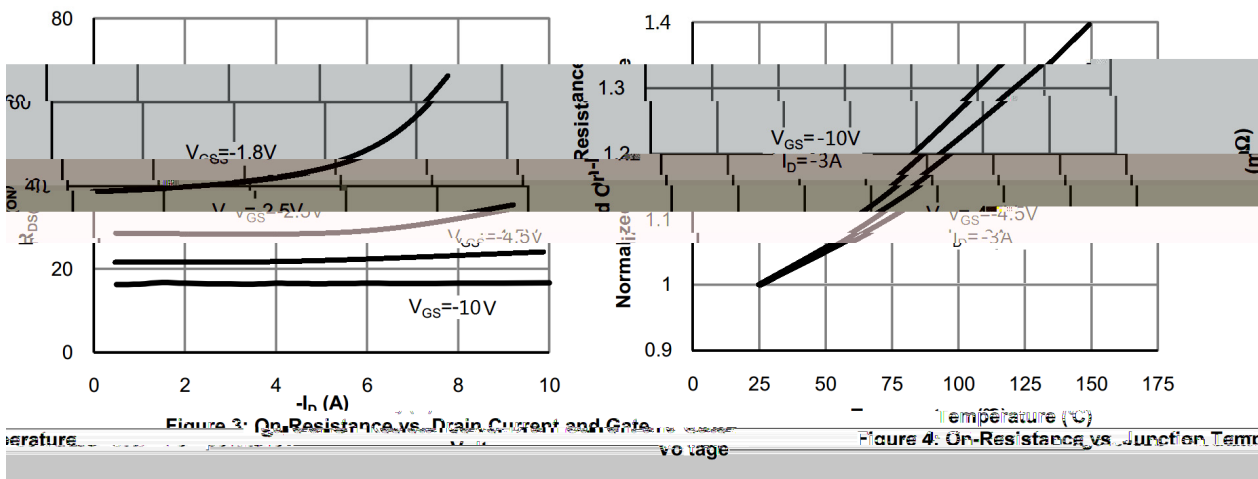
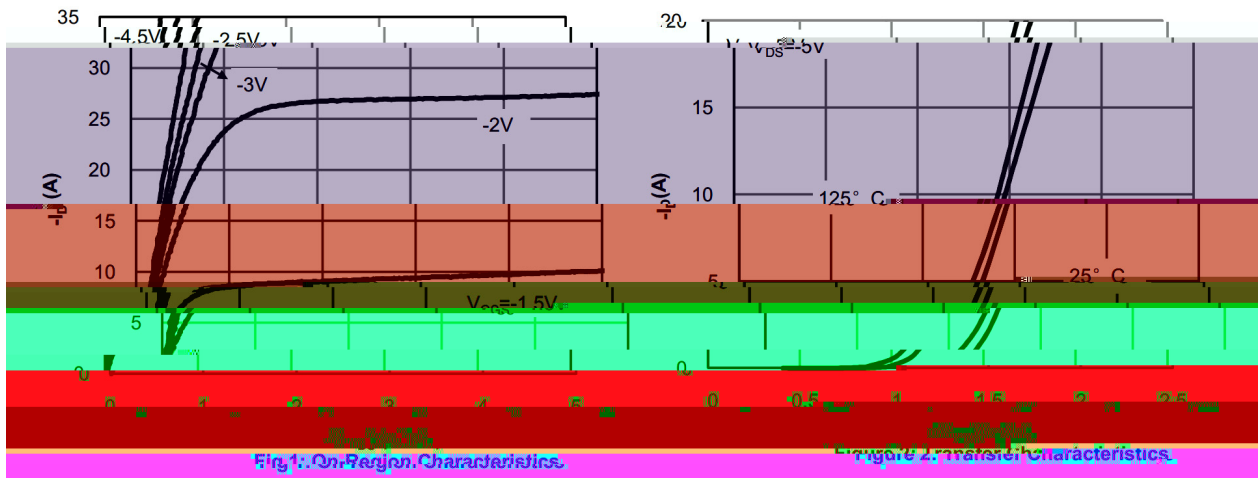
PIN 4 S

See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-12	V
Gate-Source Voltage	V_{GSS}	± 8	V
Continuous Drain Current	$I_D(T_C=25^\circ C)$	-8.0	A
Pulsed Drain Current	I_{DM}	-25	A
Power Dissipation for Single Operation	$P_D(T_C=25^\circ C)$	1.8	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	125	/W
Thermal Resistance-Junction to Case	$R_{\theta JC}$	69	/W

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DSS}	$I_D=-250\mu A$ $V_{GS}=0V$	-12	-17.5		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=-12V$ $V_{GS}=0V$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS}=0V$ $V_{GS}=\pm 8V$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}$ $I_D=-250\mu A$	-0.5	-0.6	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(ON)}$	$V_{GS}=-10V$ $I_D=-3.0A$		18	20	m Ω
		$V_{GS}=-4.5V$ $I_D=-3.0A$		21	25	
		$V_{GS}=-2.5V$ $I_D=-2.0A$		27	30	
		$V_{GS}=-1.8V$ $I_D=-1.0A$		40	50	
Diode Forward Voltage	V_{SD}	$I_S=-1A$ $V_{GS}=0V$			-1.2	V
Gate resistance	R_g	$V_{GS}=0V$, $V_{DS}=0V$, $f=1MHz$		14		Ω
Input Capacitance	C_{iss}	$V_{GS}=0V$ $V_{DS}=-6V$ $f=1MHz$		1700		pF
Output Capacitance	C_{oss}			580		
Reverse Transfer Capacitance	C_{rss}			250		

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V$ $V_{DS}=-6V$ $I_D=-8A$				



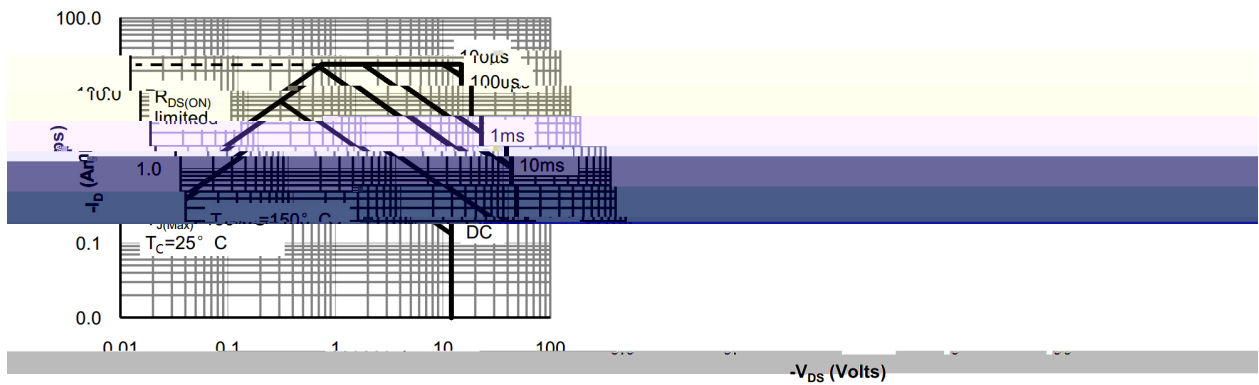
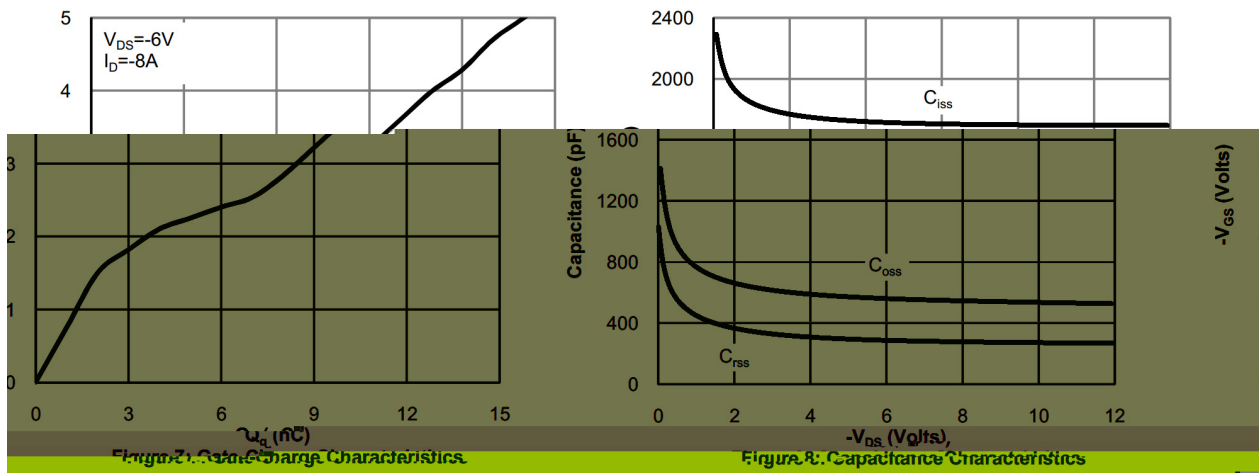


Figure 9: Maximum Forward Biased Safe Operating Area

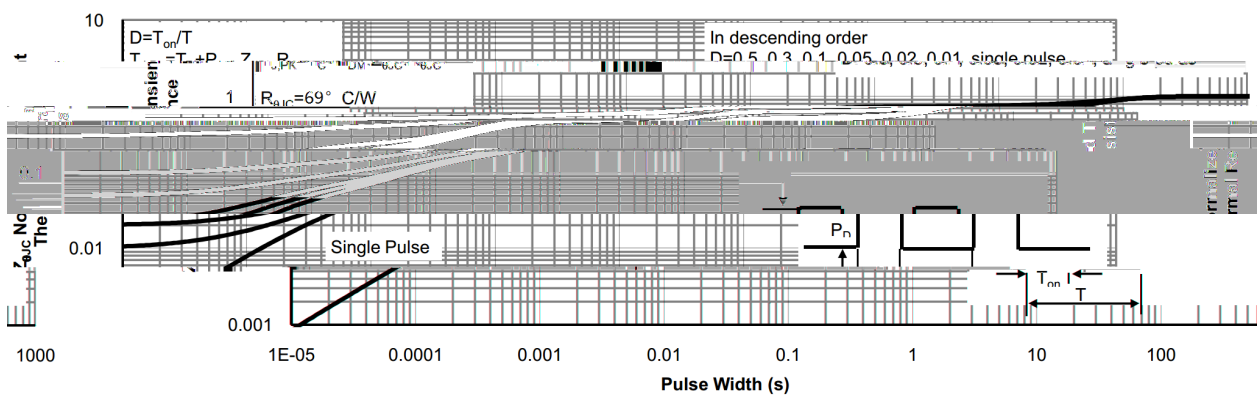
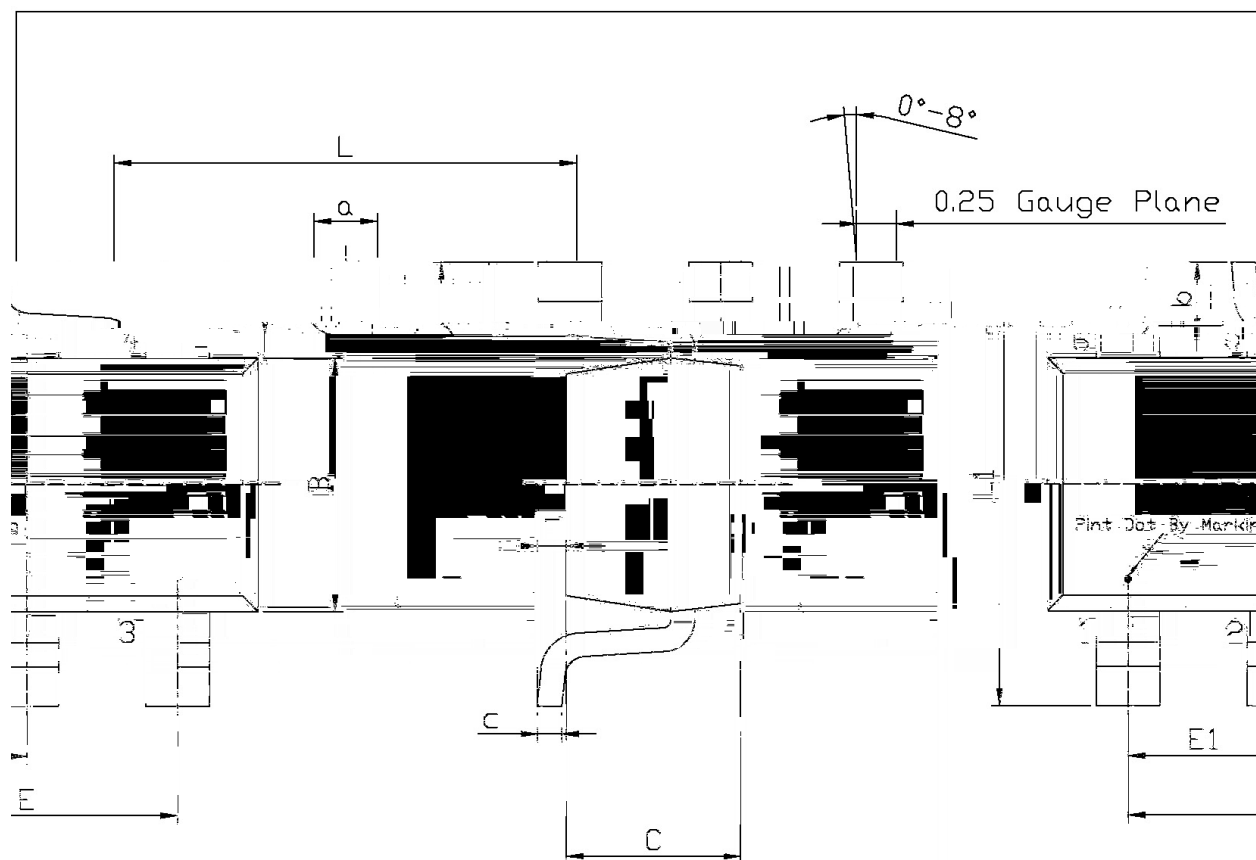


Figure 10: Normalized Maximum Transient Thermal Impedance

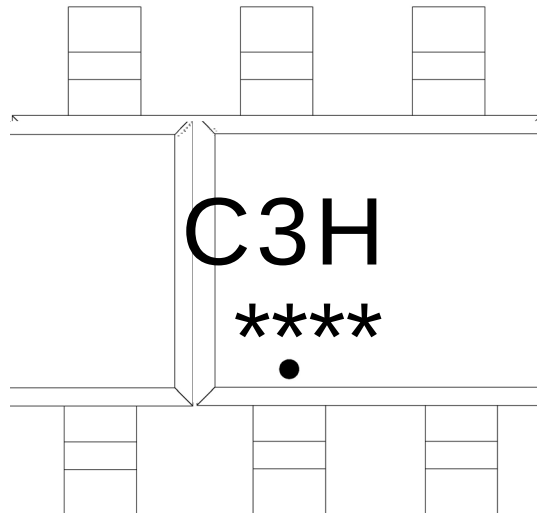


Unit: mm

Dimensions In Millimeters		Symbol	Dimensions In Millimeters	
Min	Max		Min	Max
2.82	3.02	E1	0.85	1.05
1.50	1.70	a	0.35	0.50
0.90	1.30	c	0.10	0.20
2.60	3.00	b	0.35	0.55
1.80	2.00	F	0	0.15

Symbol
L
B
C
L1
E

SOT23-6



C3

H

Note:

C3: Product Type Code

H: Company Code

**** Lot No. Code, code change with Lot No

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.

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

/ REEL

Package Type	Units					Dimension (unit mm ³)		
SOT23-5/6	3,000	10	30,000	4	120,000	7" ×8	210×205×205	445×435×230