

Rev.A Apr.-2025

SOT-23 P MOS

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

$Y_{GV} + Y, @ 049Y \quad L_G @ 0813D$

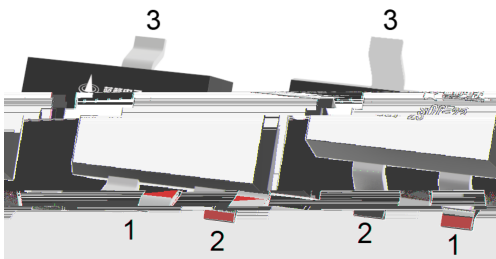
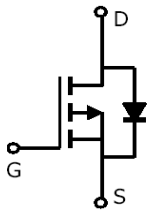
$U_{GV+RQ}, C0718Y \square 68 p \sim +W | s1 5; 18 p \sim,$

$U_{GV+RQ}, C0518Y \square 88 p \sim +W | s1 6; 1; p \sim,$

$U_{GV+RQ}, C041; Y +W | s1 87 p \sim,$

KI Surgxfl

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



PIN1 G

PIN 2 S

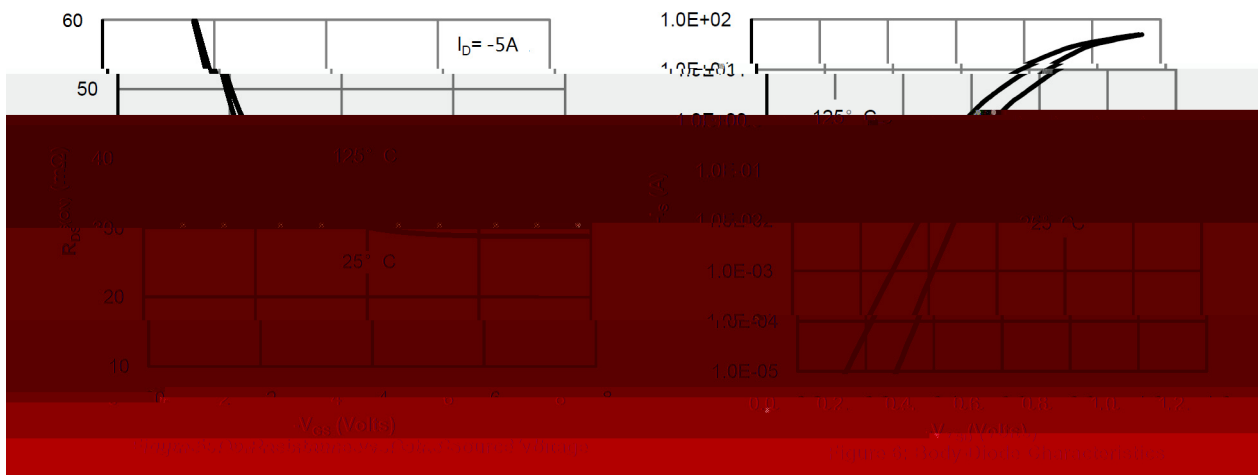
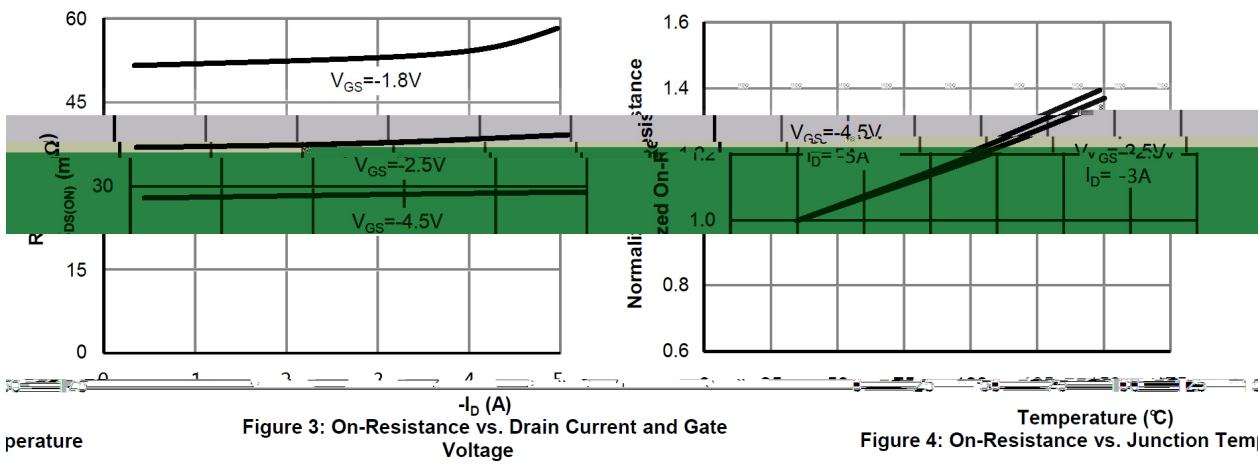
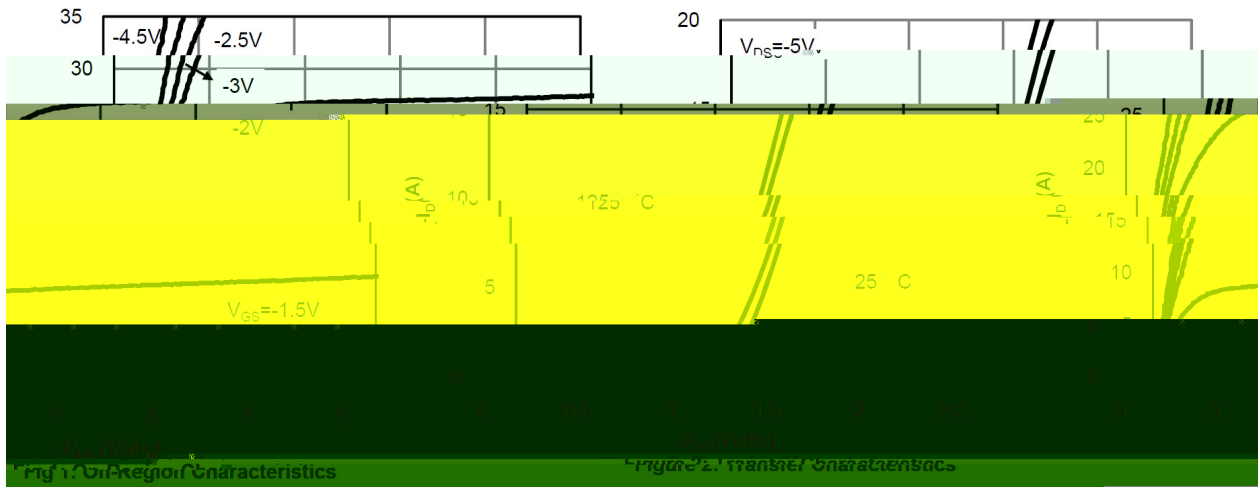
PIN 3 D

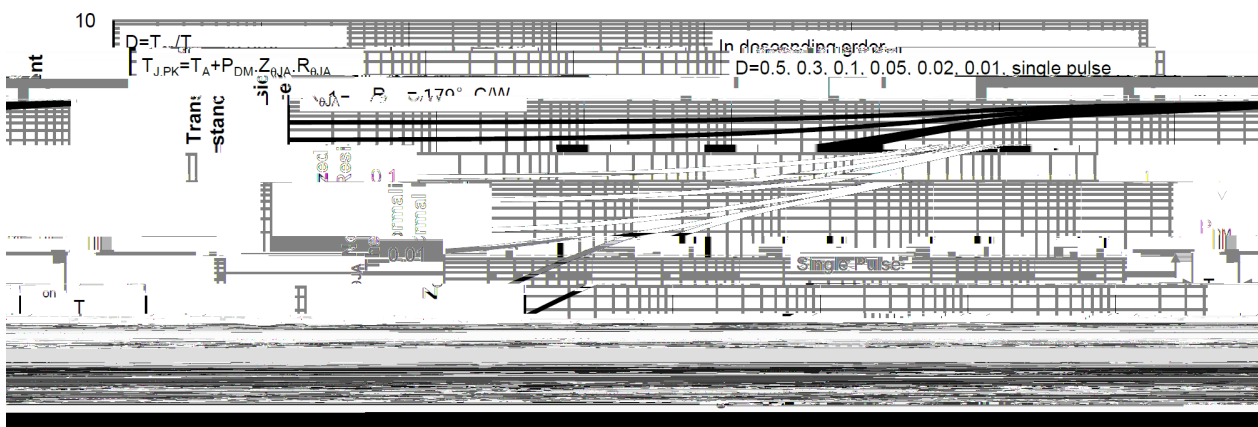
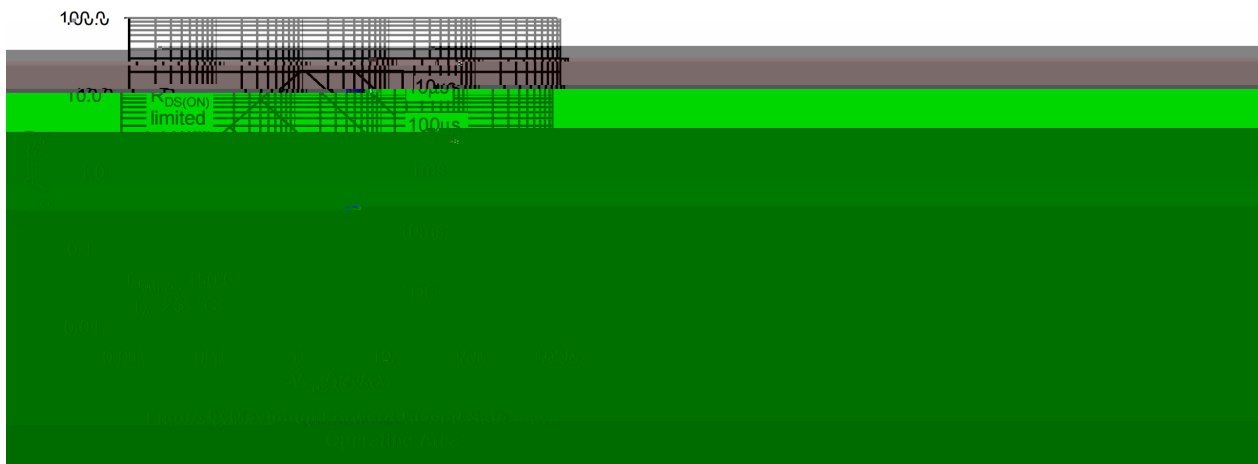
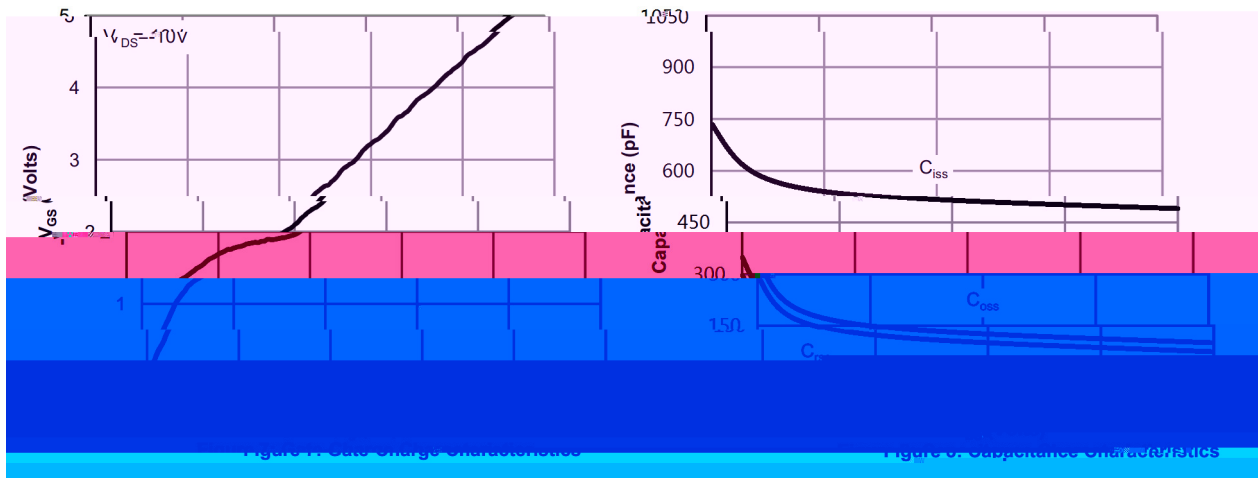
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DS}	-16	V
Gate-Source Voltage	V_{GS}	± 12	V
Continuous Drain Current	I_D	-5.0	A
Pulsed Drain Current	I_{DM}	-20	A
Power Dissipation for Single Operation	P_D	0.7	W
Maximum Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	179	$^{\circ}\text{C/W}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-Source Breakdown Voltage	BV_{DS}	$I_D = -250\mu\text{A}$ $V_{GS} = 0\text{V}$	-16	-17.8		V
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS} = -15\text{V}$ $V_{GS} = 0\text{V}$			-1.0	μA
Gate-Body leakage current	I_{GSS}	$V_{DS} = 0\text{V}$ $V_{GS} = \pm 12\text{V}$			± 100	nA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}$ $I_D = -250\mu\text{A}$	-0.4	-0.62	-1.0	V
Static Drain-Source On-Resistance	$R_{DS(on)}$	$V_{GS} = -4.5\text{V}$ $I_D = -5\text{A}$		28.5	35	m
		$V_{GS} = -2.5\text{V}$ $I_D = -3\text{A}$		38.8	55	
		$V_{GS} = -1.8\text{V}$ $I_D = -1\text{A}$		54		
Diode Forward Voltage	V_{SD}	$I_S = -1\text{A}$ $V_{GS} = 0\text{V}$			-1.2	V
Reverse Recovery Time	t_{rr}	$V_{DS} = -10\text{V}$, $I_D = -4\text{A}$ $dI_{SD}/dt = 100 \text{ A}/\mu\text{s}$		18.7		ns
Reverse Recovery Charge	Q_{rr}			4		nC
Gate resistance	R_g	$V_{GS} = 0\text{V}$, $f = 1\text{MHz}$ $V_{DS} = 0\text{V}$		8.5		
Input Capacitance	C_{iss}	$V_{GS} = 0\text{V}$ $f = 1\text{MHz}$ $V_{DS} = -15\text{V}$		495		pF
Output Capacitance	C_{oss}			100		
Reverse Transfer Capacitance	C_{rss}			80		

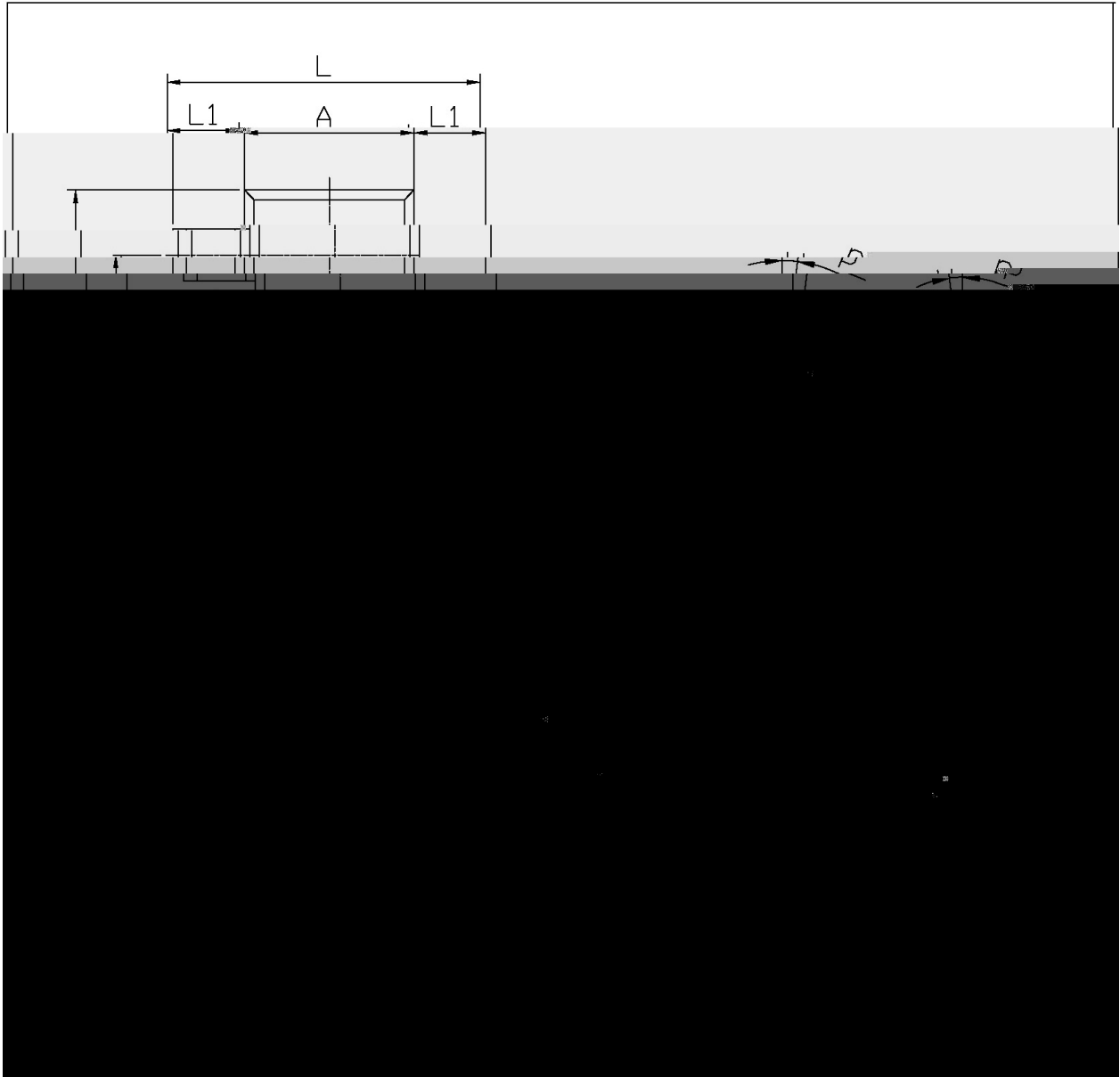
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V, \quad V_{DS}=-10V,$ $R_L=2.5\Omega$		5.7		nC
Gate Source Charge	Q_{gs}			0.3		
Gate Drain Charge	Q_{gd}			1.9		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V \quad V_{DS}=-10V$ $R_L=2.5\Omega \quad R_g=3\Omega$		8.3		ns
Turn-On Rise Time	t_r			32.3		
Turn-Off Delay Time	$t_{d(off)}$			38.2		
Turn-Off Fall Time	t_f			49.4		

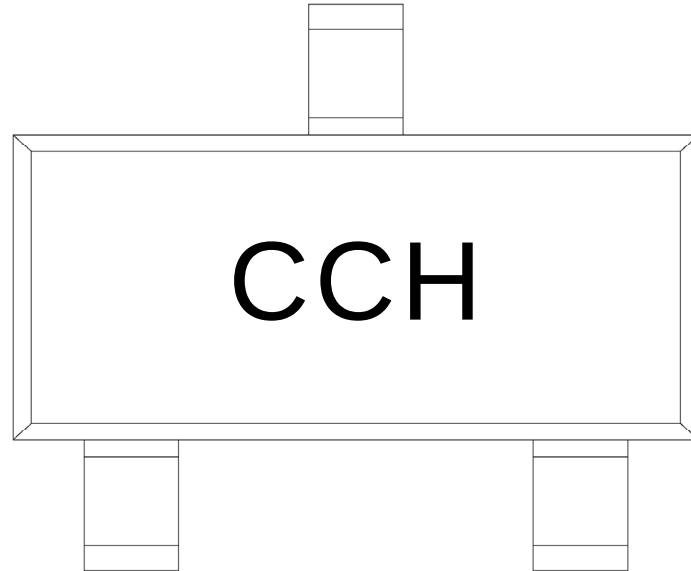




SOT-23

单位: mm





H

CC

Note:

H: Company Code

CC: Product Type 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

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