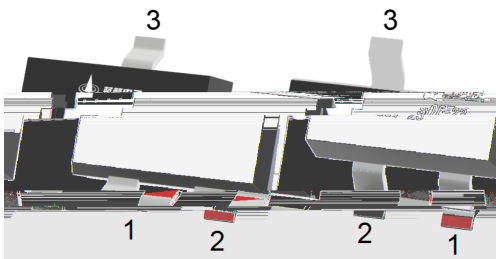
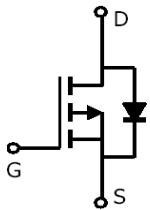


Rev.A Apr.-2025

SOT-23 3-Pin N-Channel MOSFET in a SOT-23 Plastic Package.

$V_{GS} = 4.5V$, $I_{DS} @ 0.1mA$
 $U_{GS+RQ}, C_{iss} = 68pF$
 $U_{GS+RQ}, C_{oss} = 88pF$
 $U_{GS+RQ}, C_{iss} = 87pF$
 Thermal Resistance R_{JA}

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



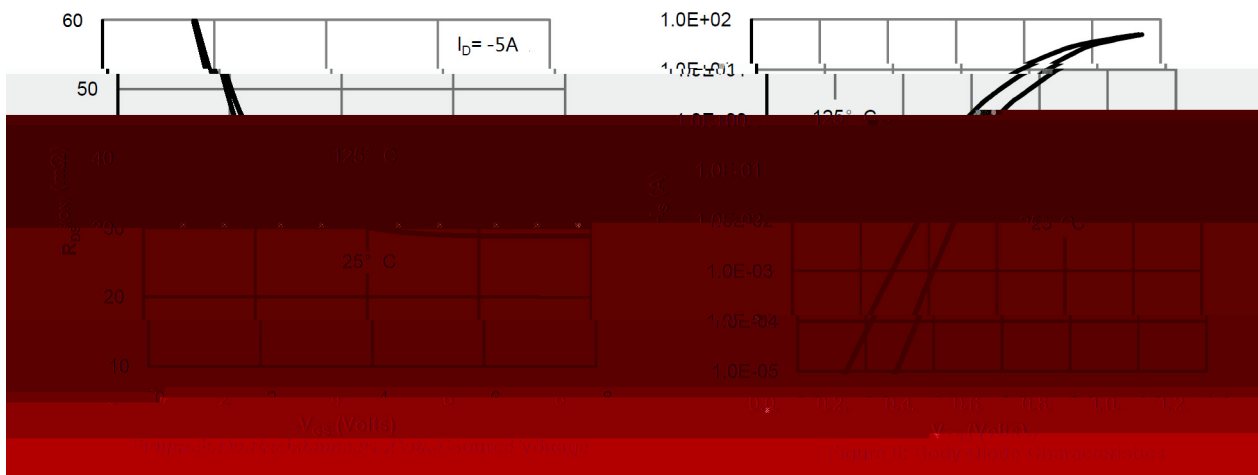
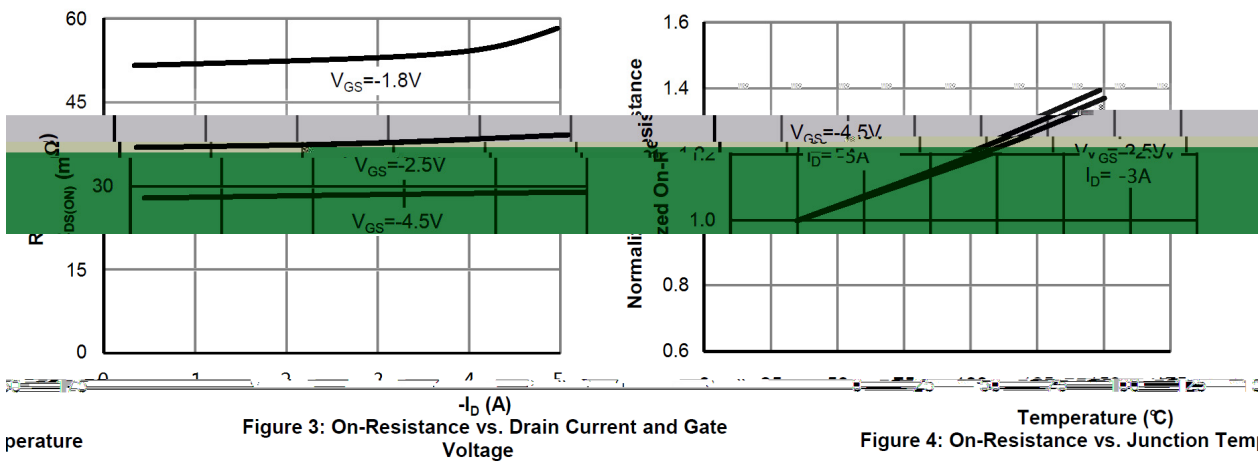
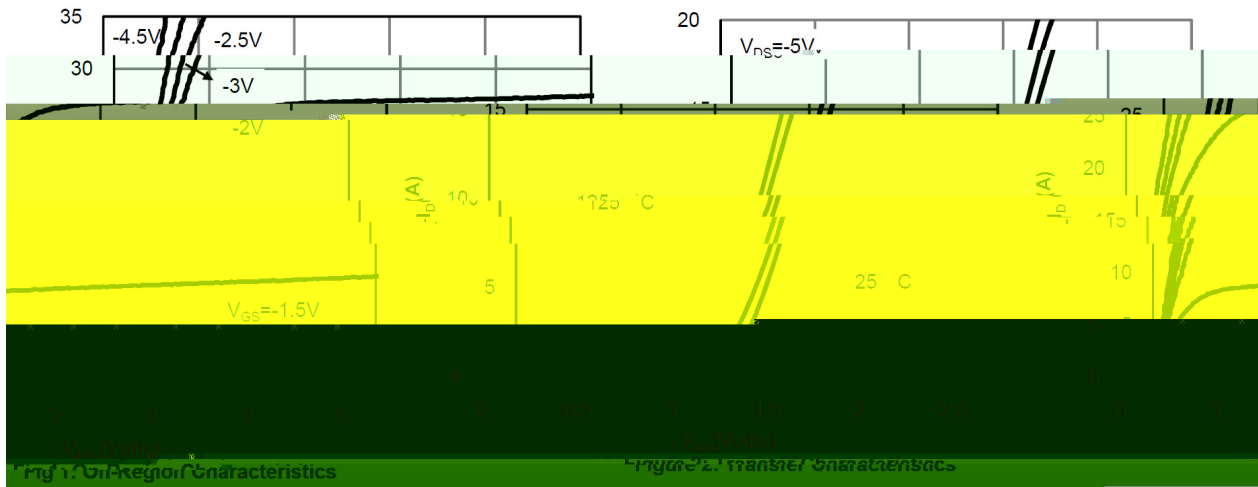
PIN 1: G PIN 2: S PIN 3: D

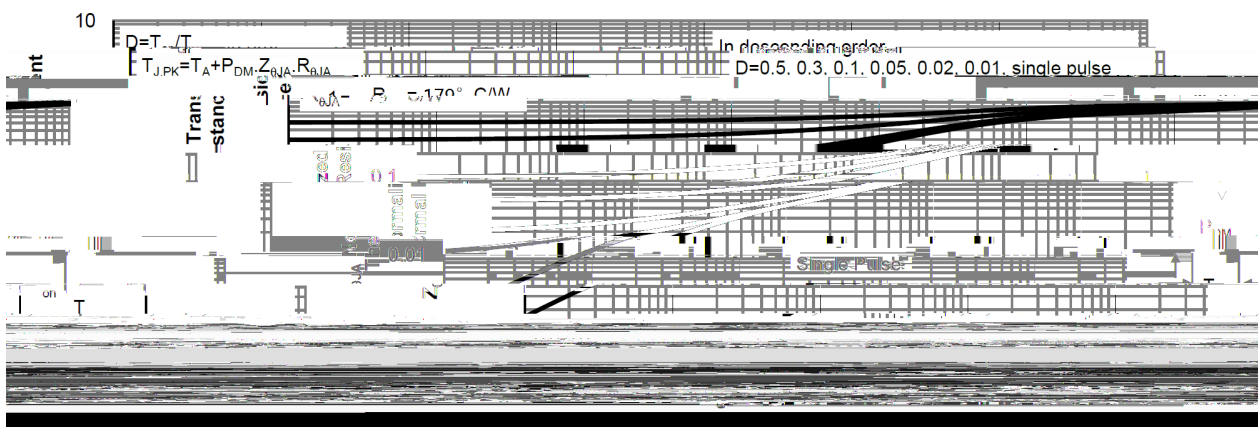
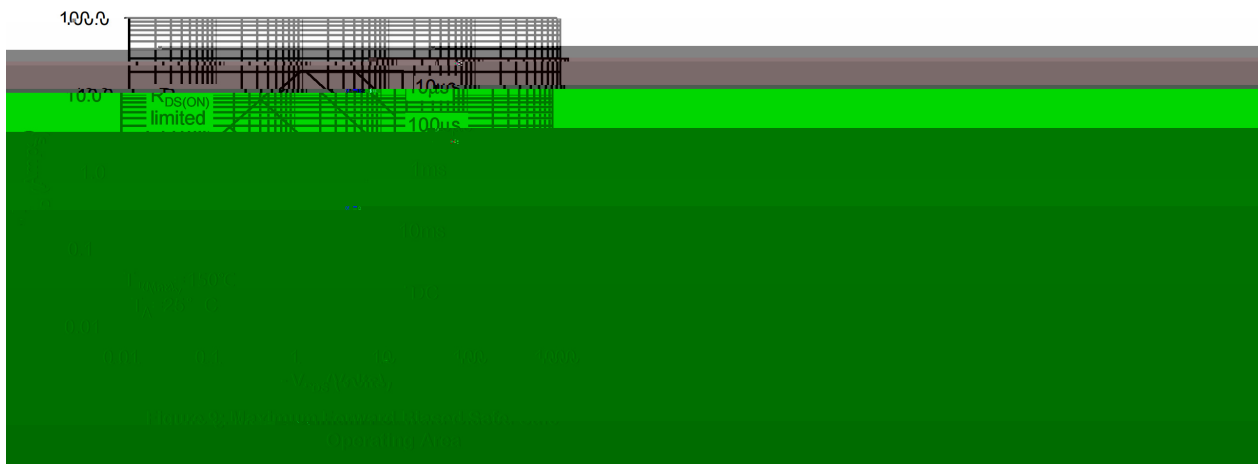
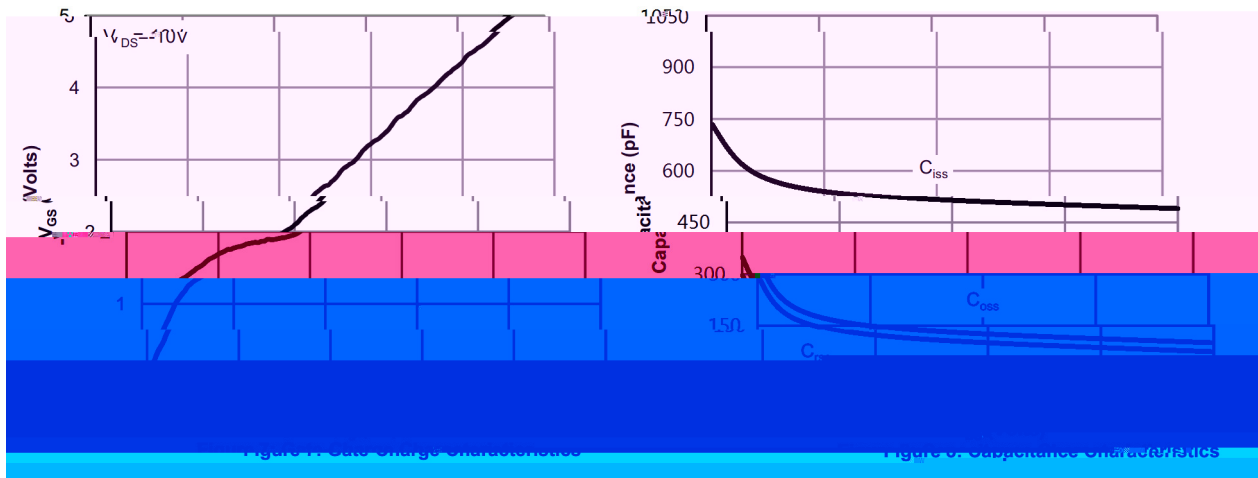
See Marking Instructions.

Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	-16	V
Gate-Source Voltage	V_{GSS}	± 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 °C ~ 150	
Thermal Resistance-Junction to Ambient	$R_{\theta JA}$	179	°C/W

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

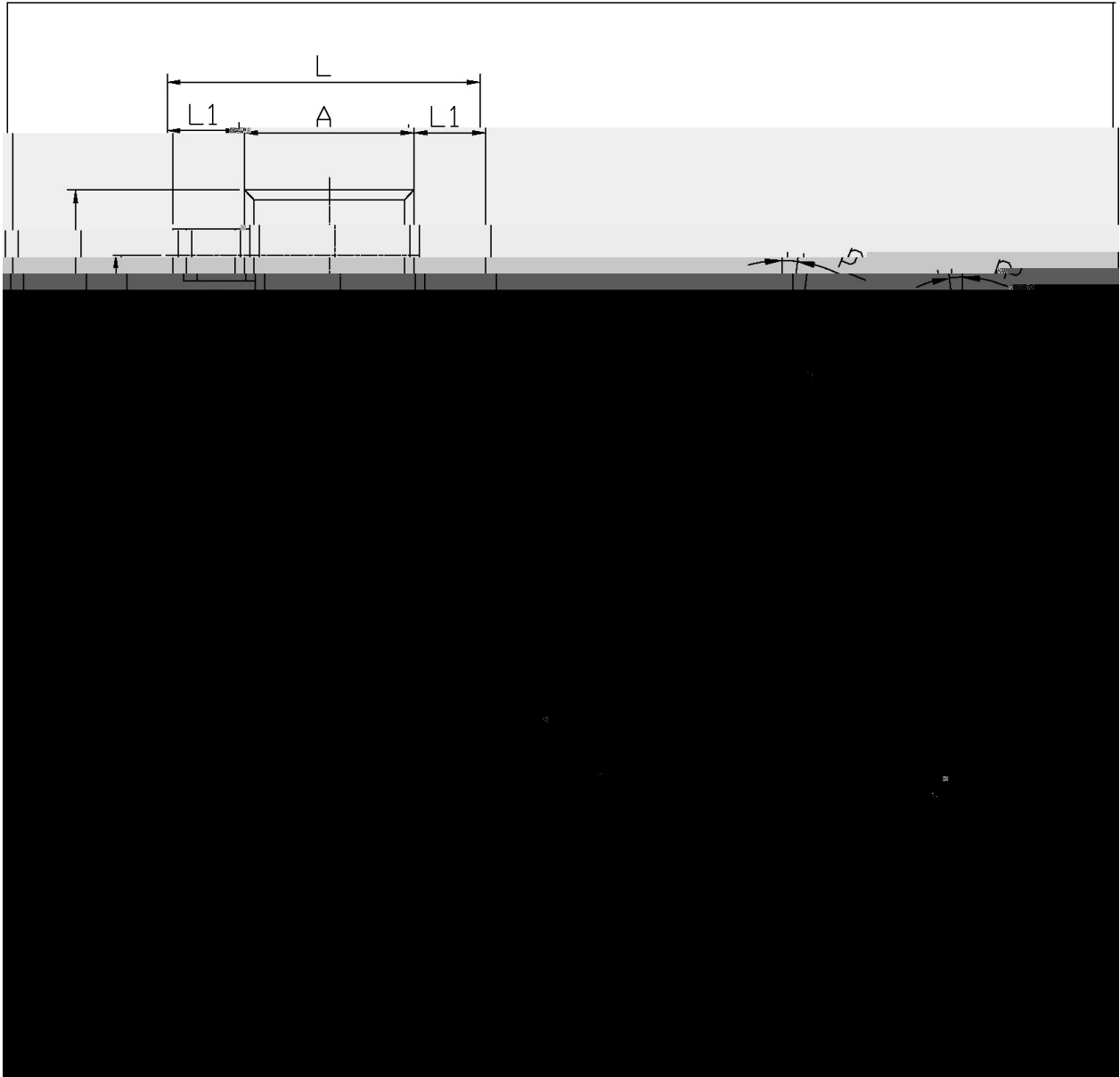
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Total Gate Charge	Q_g	$V_{GS}=-4.5V, V_{DS}=-10V, R_L=2.5\Omega$		5.7		nC
Gate Source Charge	Q_{gs}			0.3		
Gate Drain Charge	Q_{gd}			1.9		
Turn-On Delay Time	$t_{d(on)}$	$V_{GS}=-4.5V, V_{DS}=-10V, R_L=2.5\Omega, R_g=3\Omega$		8.3		ns
Turn-On Rise Time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

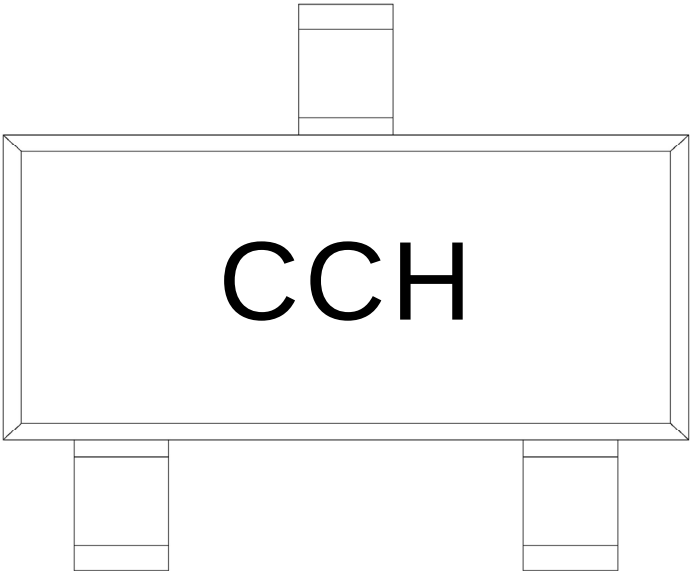




SOT-23

单位: mm





” X

H X 𐄂 𐄃 𐄄 𐄅

CC X 𐄂 𐄃 𐄄 𐄅

Note:

H: Company Code

CC: Product Type Code

Temperature Profile for IR Reflow Soldering(Pb-Free)

” X

1. 150~180 ℃, Time: 60~90sec;
2. 245±5 ℃, Duration: 5~10sec;
3. Cooling Speed: 2~10 ℃/sec.

Note:

- 1.Preheating:150~180 ℃, Time:60~90sec.
- 2.Peak Temp.:245±5 ℃, Duration:5~10sec.
3. Cooling Speed: 2~10 ℃/sec.

1. 260±5 ℃, Time: 10±1 sec.

Temp.:260±5

Time:10±1 sec

1. REEL

50AAM.01r