



/ Revised record

A	2018-7				
B	2019-9-27	1			
C	2021-10-26		,		

SOT-363 N MOS

N-CHANNEL MOSFET in a SOT-363 Plastic Package.

SOT-363 1500V

Low RDS(on), rugged and reliable, compact industry standard SOT-363 surface mount package. ESD protected up to 1500V. HF product.

Typical applications are dc-dc converters, portable power management and battery-Charging products.

PIN1 S1 PIN 2 G1 PIN 3 D2 PIN 4 S2 PIN 5 G2 PIN 6 D1

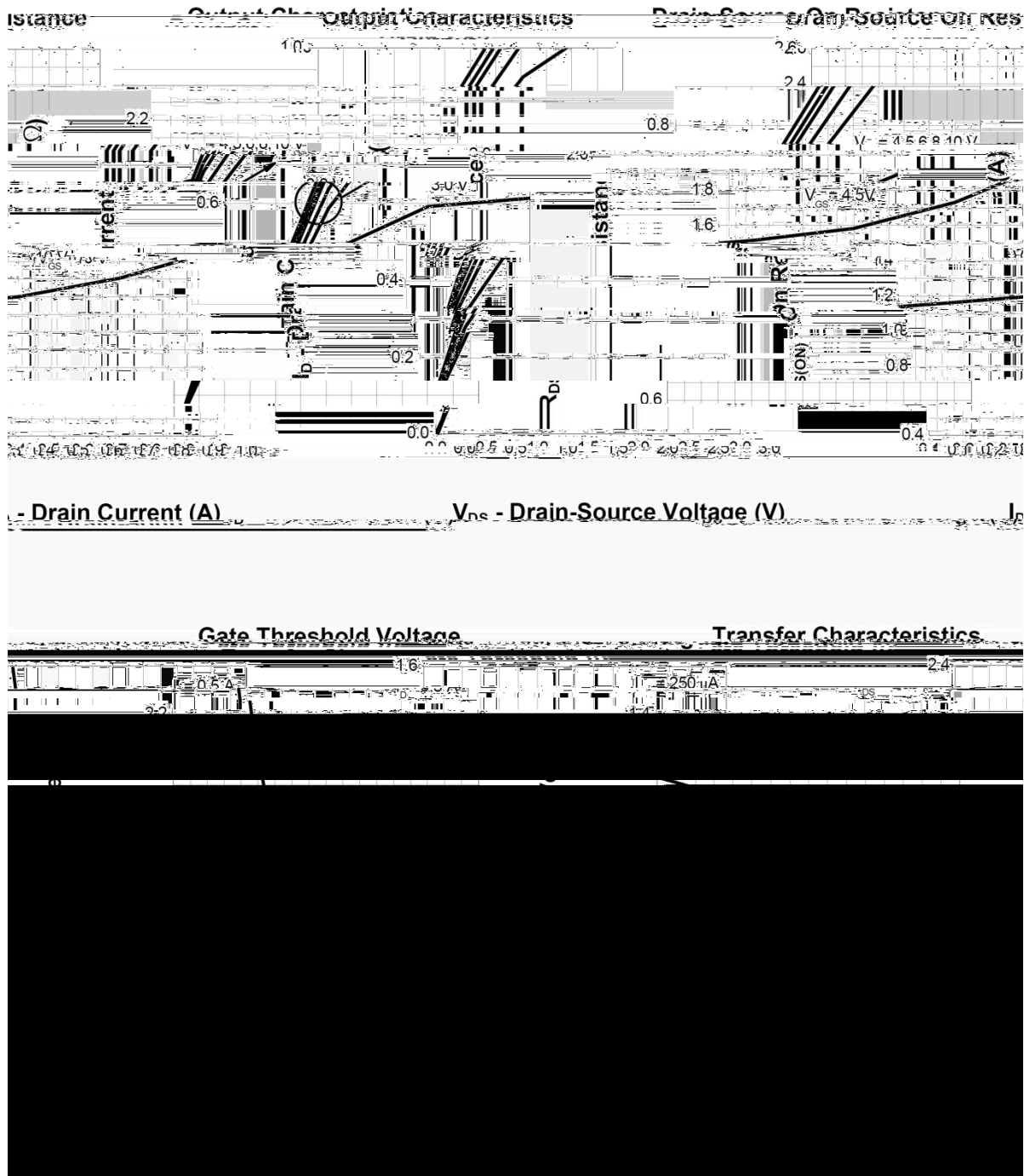
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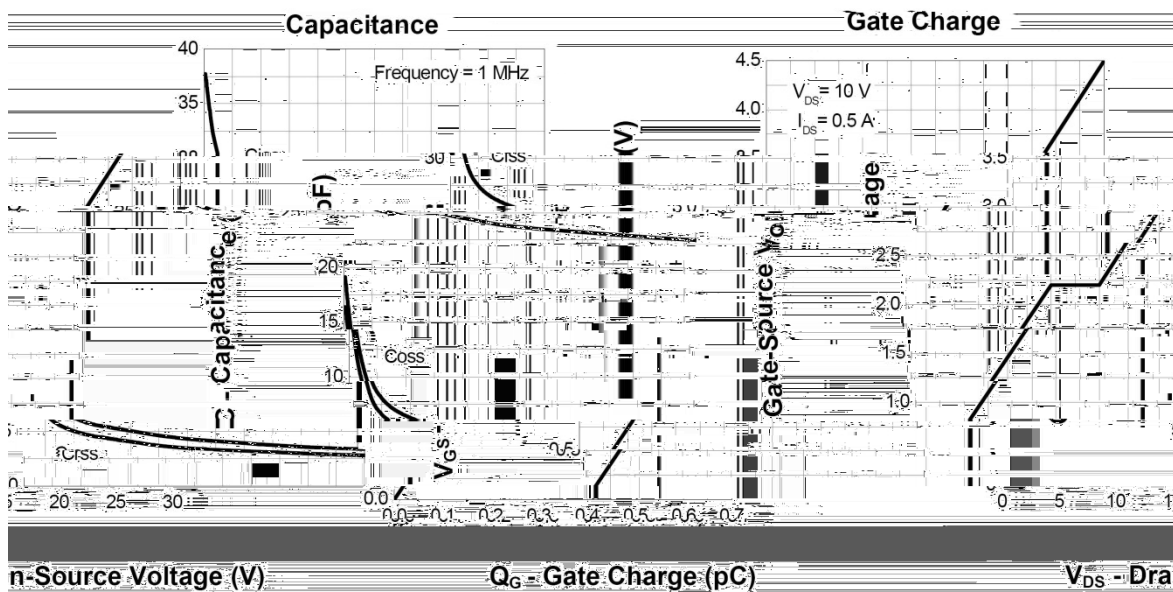
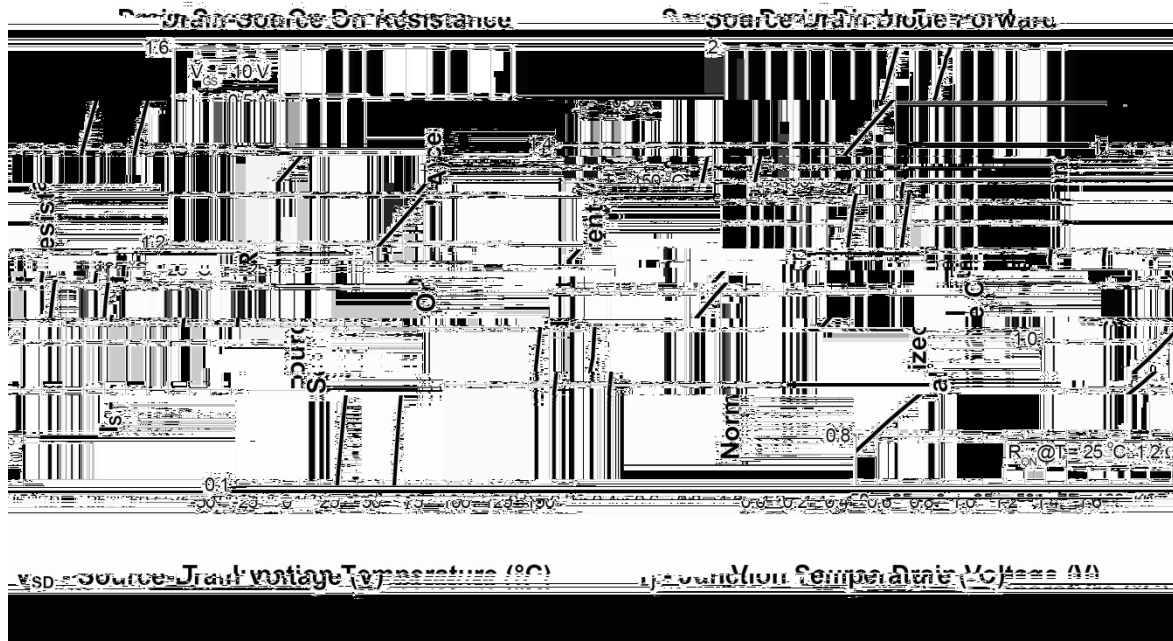
Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	50	V
Gate-Source Voltage	V_{GSS}	± 20	V
Drain Current – Continuous	I_D	200	mA
Peak Drain Current	I_{DM}	800	mA
Power Dissipation	P_D	380	mW
Thermal Resistance, Junction-to-Ambient	$R_{\theta JA}$	328	$^{\circ}\text{C/W}$
Storage Temperature Range	T_{stg}	-55 150	$^{\circ}\text{C}$

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Drain-to-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V \quad I_D = 250 \mu A$	50			V
Zero Gate Voltage Drain Current	$I_{DSS(1)}$	$V_{GS}=0 \quad V_{DS}=25V$			0.1	μA
	$I_{DSS(2)}$	$V_{GS}=0 \quad V_{DS}=50V$			0.5	μA
Gate-Body Leakage.	I_{GSS}	$V_{DS}=0V \quad V_{GS}=\pm 20$			± 10	μA
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS} \quad I_D=1.0mA$	0.5		1.5	V
Static Drain-Source On-Resistance	$R_{DS(on)(1)}$	$V_{GS}=10V \quad I_D=200mA$		2.5	3.5	Ω
	$R_{DS(on)(2)}$	$V_{GS}=4.5V \quad I_D=200mA$		3.1	5	Ω
	$R_{DS(on)(3)}$	$V_{GS}=2.75V \quad I_D<200mA$ $T_a=-40 \quad \text{to} \quad +85$		5.6	10	Ω
Forward Transconductance	g_{FS}	$V_{DS}=25V \quad I_D=200mA$	100			mS
Input Capacitance	C_{iss}	$V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$		22.8		pF
Output Capacitance	C_{oss}	$V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$		3.5		
Transfer Capacitance	C_{rss}	$V_{DS} = 25V \quad V_{GS} = 0$ $f = 1.0 \text{ MHz}$		2.9		
Turn-On Delay Time	$t_{d(on)}$	$V_{DS} = 30V \quad I_{DS} = 0.5A$		3.8		ns
Turn-Off Delay Time	$t_{d(off)}$			19	36	ns

/ Electrical Characteristic Curve

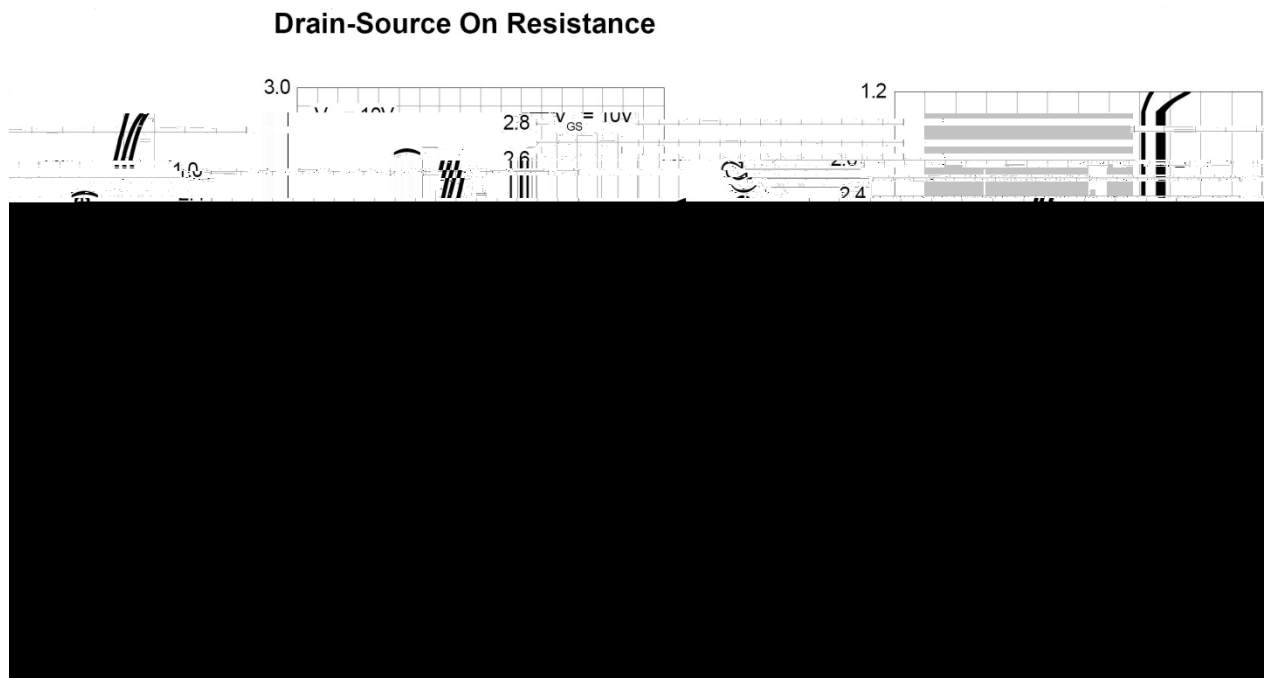
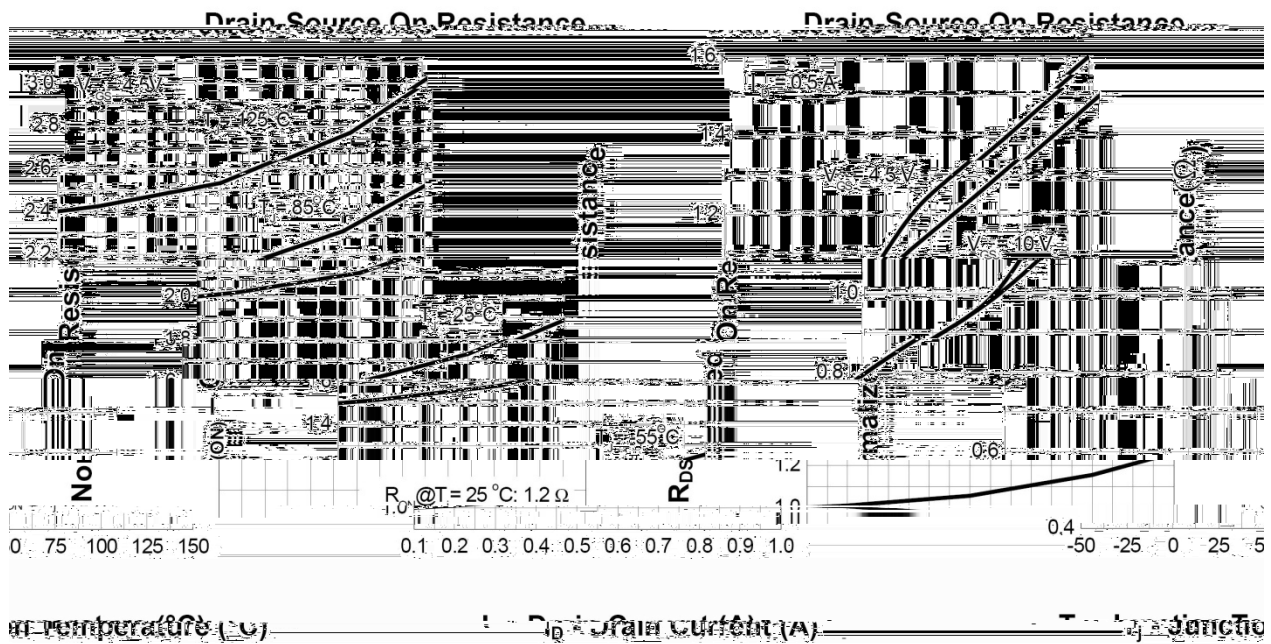


/ Electrical Characteristic Curve





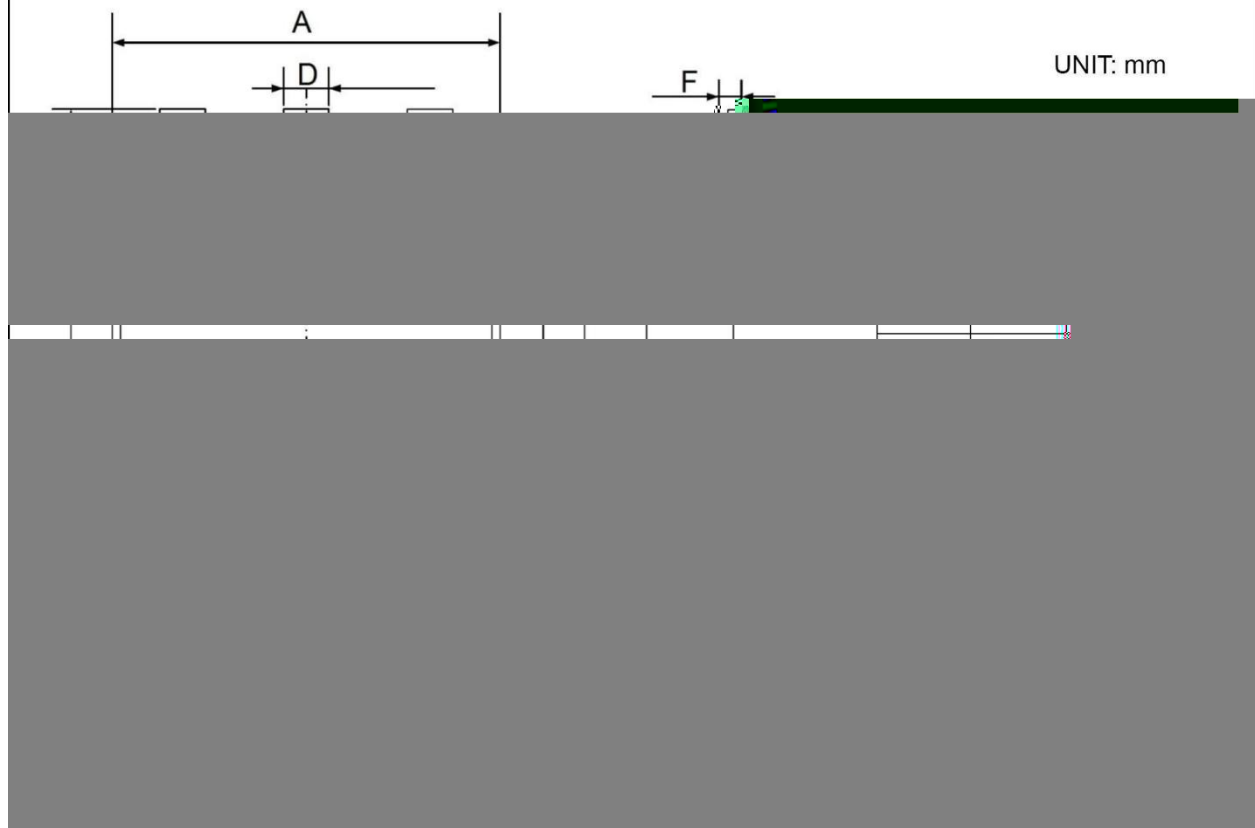
/ Electrical Characteristic Curve





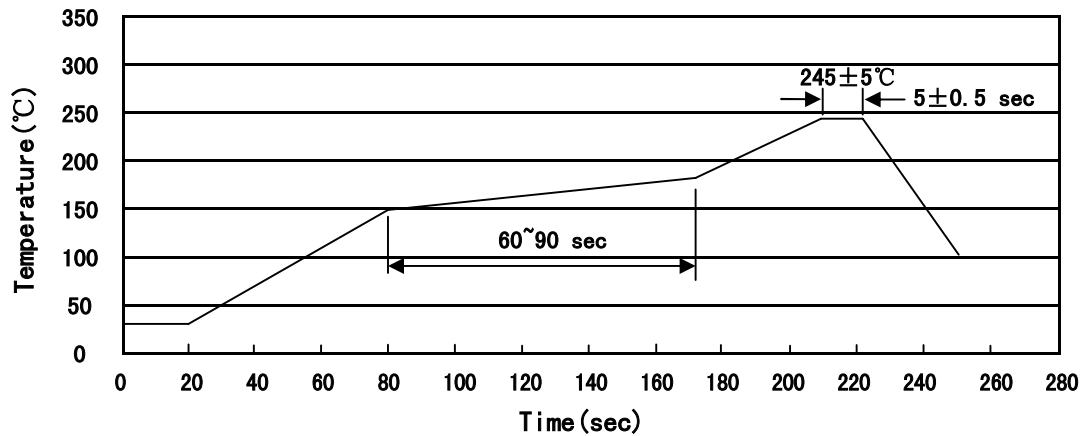
/ Package Dimensions

SOT-363-6L





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



说明：

- 1、预热温度 150 ~ 180°C，时间 60 ~ 90sec;
- 2、峰值温度 245±5°C，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10°C/sec.

Note:

- 1.Preheating:150~180°C, Time:60~90sec.
- 2.Peak Temp.:245±5°C, Duration:5±0.5sec.
3. Cooling Speed: 2~10°C/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5°C

时间：10±1 sec.

Temp.:260±5°C

Time:10±1 sec

/ Packaging SPEC.

卷盘包装 / REEL

Package Type 封装形式	Units 包装数量					Dimension 包装尺寸 (unit: mm ³)		
	Units/Reel 只/卷盘	Reels/Inner Box 卷盘/盒	Units/Inner Box 只/盒	Inner Boxes/Outer Box 盒/箱	Units/Outer Box 只/箱	Reel	Inner Box 盒	Outer Box 箱
SOT-363	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices