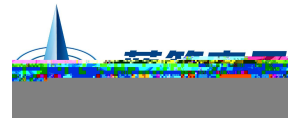


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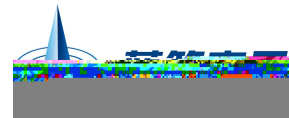


DATA SHEET

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DATA SHEET

/ Descriptions

SOT-23 $\pm 2^\circ$ MOS

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

/ Features

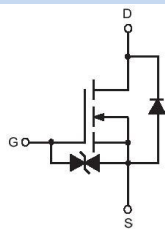
ESD protected up to 2KV, Qualified to AEC-Q101 Standards for High Reliability, HF Product.

Sensitive gate trigger current and Low Holding current.

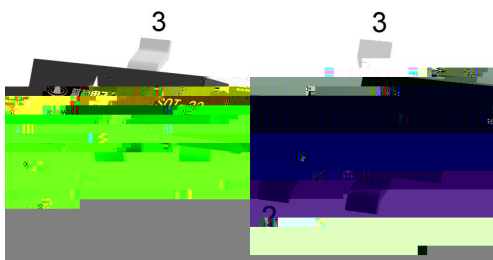
/ Applications

Intended for use in general purpose switching and phase control applications, Meet the stringent requirements of automotive applications.

/ Equivalent Circuit



/ Pinning



PIN 1 $\S$ G

PIN 2 $\S$ S

PIN 3 $\S$ D

/ Marking

Marking	702Q2
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Parameter	Symbol	Rating	Unit
Drain-Source Voltage	V_{DSS}	60	V
Drain-Gate Voltage	V_{DGR}	60	V
Drain Current - Continuous	$I_D (T_a=25^{\circ}C)$	300	mA
	$I_D (T_a=85^{\circ}C)$	210	
Drain Current - Pulsed(Note 1)	I_{DM}	1200	mA
Gate-Source Voltage - Continuous	V_{GSS}	± 20	V
Power Dissipation	P_D	350	mW
Junction Temperature Range	T_j	150	$^{\circ}C$
Storage Temperature Range	T_{stg}	-55~150	$^{\circ}C$
Maximum Junction-to-Ambient(Note 2)	$R_{\theta JA}(\text{Steady State})$	300	$^{\circ}C/W$
	$R_{\theta JA}(t \leq 5s)$	92	

Note 1) Pulse Width 10us, Duty Cycle 1%

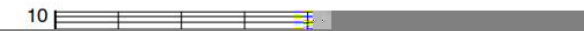
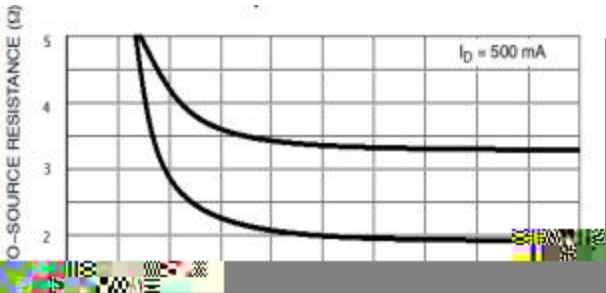
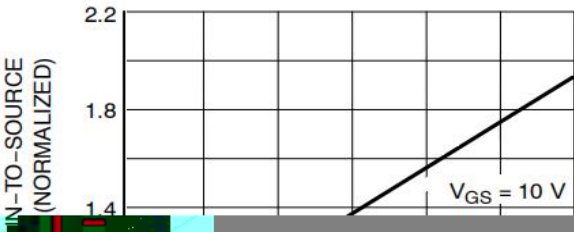
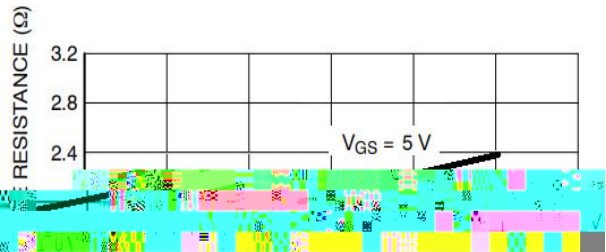
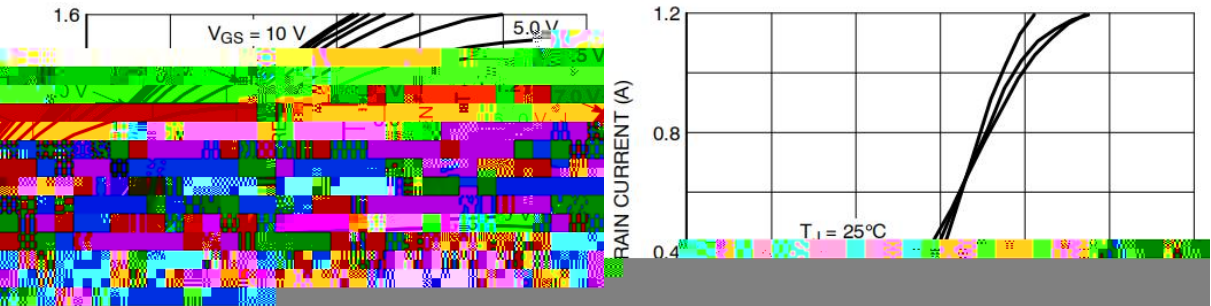
Note 2) Surface-mounted on FR4 board using 1 sq in pad size with 1 oz Cu

Parameter Symbol

/ Electrical Characteristics(Ta=25)

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Turn-On Delay Time	$t_{d(ON)}$	VGS =10V, VDD=25V, ID=500mA, RG=25 Ω		12.2		ns
Rise Time	t_r			9.0		
Turn-Off Delay Time	$t_{d(OFF)}$			55.8		
Fall Time	t_f			29		

/ Electrical Characteristic Curve



/ Electrical Characteristic Curve

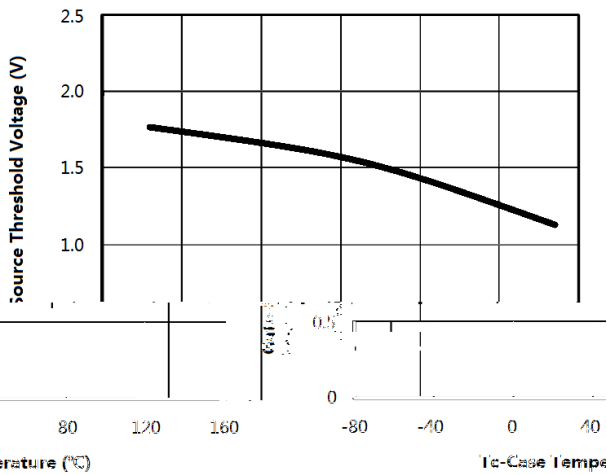
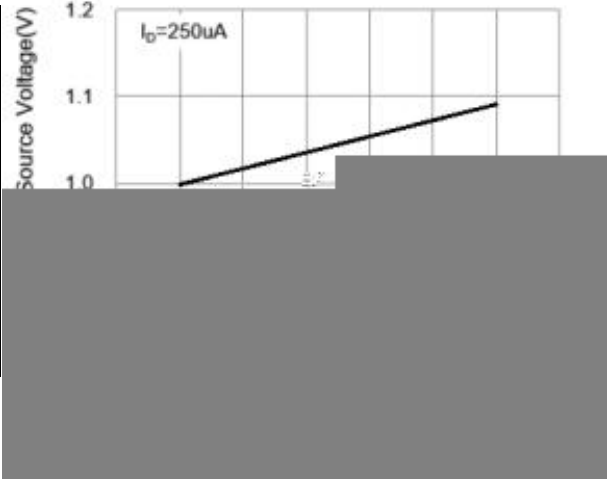
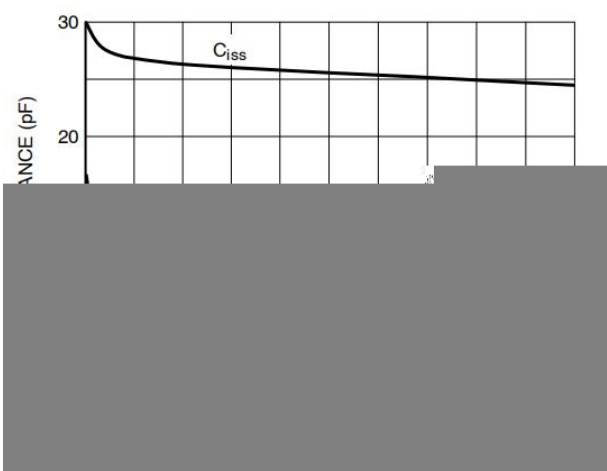
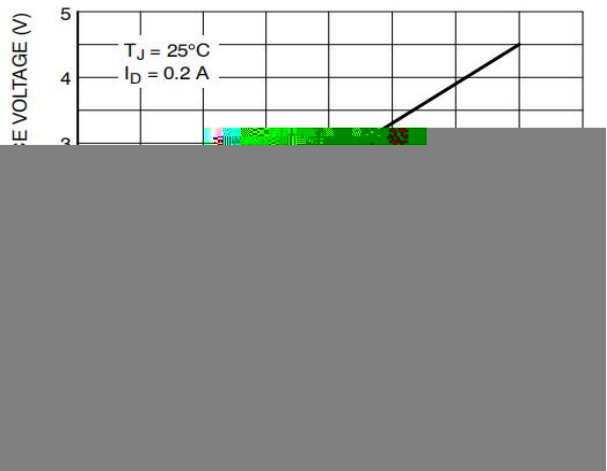
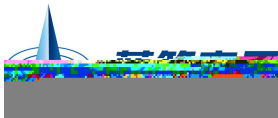


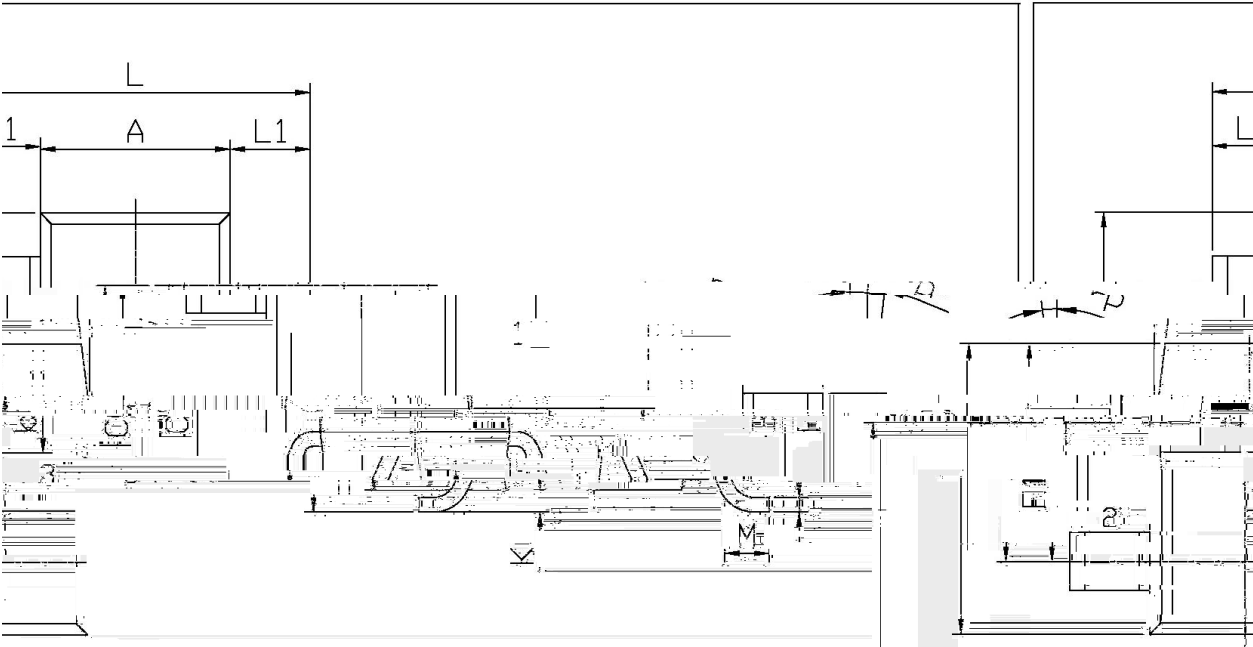
Figure 9 : Safe Operating Area

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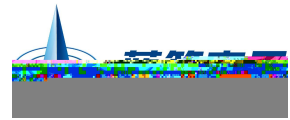


/ Package Dimensions

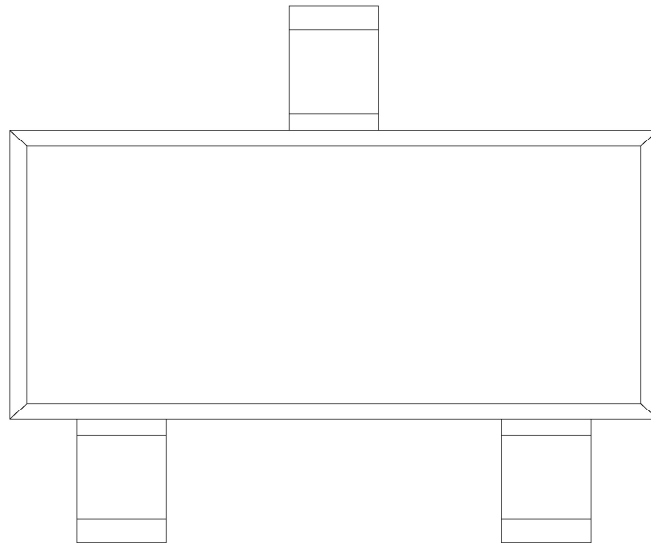
SET 22 半固定型 S-LITRE



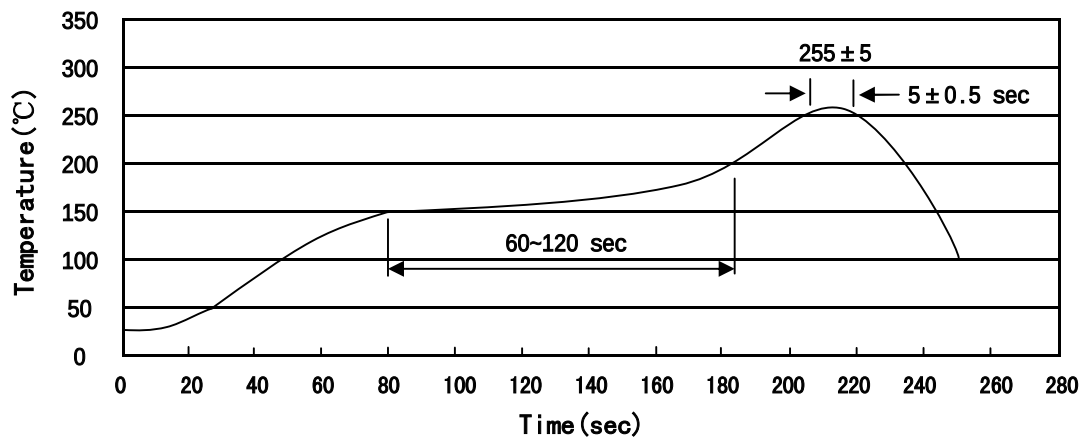
Dimensions in Millimeters			Dimensions in Millimeters		
Symbol	Min	Max	Symbol	Min	Max
L	2.2	2.7	C	1.30	Max
A	1.15	1.50	B	2.70	3.10
M1	0.20	0.45	E1	0.85	1.05
7°			0.35		



/ Marking Instructions



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



说明：

- 1、预热温度 150 ~ 200℃，时间 60 ~ 120sec;
- 2、峰值温度 255±5℃，时间持续为 5±0.5sec;
- 3、焊接制程冷却速度为 2 ~ 10℃/sec.

Note:

- 1.Preheating:150~200℃, Time:60~120sec.
- 2.Peak Temp.:255±5℃, Duration:5±0.5sec.
3. Cooling Speed: 2~10℃/sec.

/ Resistance to Soldering Heat Test Conditions

温度：260±5℃ 时间：10±1 sec. Temp.:260±5℃ 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-23	3,000	10	30,000	6	180,000	7" ×8	180×120×180	390×385×205

/ Notices