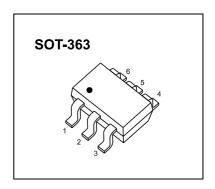
# **SOT-363 Plastic-Encapsulate MOSFETS**

#### **FEATURE**

- High density cell design for Low R<sub>DS (on)</sub>
- Voltage controlled small signal switch
- Rugged and reliable
- High saturation current capability
- ESD protected



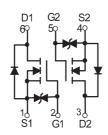
#### **APPLICATION**

- Load Switch for Portable Devices
- DC/DC Converter

#### **MARKING**

# 72K

#### **Equivalent Circuit**



#### **MOSFET MAXIMUM RATINGS (T<sub>a</sub>=25°C unless otherwise noted)**

Symbol	Parameter	Value	Unit	
<b>V</b> DS	Drain-Source voltage	60	V	
Vgs	Gate-Source voltage	±20	V	
lo	Drain Current	340	mA	
PD	Power Dissipation	0.15	W	
TJ	Junction Temperature	150	°C	
Tstg	Storage Temperature	-55-150	°	
Reja	Thermal Resistance from Junction to Ambient	833	°C /W	



# 2N7002ED N-Channel MOSFET(ESD)

# **SOT-363 Plastic-Encapsulate MOSFETS**

#### MOSFET ELECTRICAL CHARACTERISTICS

#### T<sub>a</sub>=25 °C unless otherwise specified

Parameter	Symbol	Test Condition	Min	Тур	Max	Units			
Static Characteristics									
Drain-Source Breakdown Voltage	Vos	Vgs = 0V, ID =250µA	0V, I <sub>D</sub> =250μA 60			V			
Gate Threshold Voltage*	VGS(th)	V <sub>DS</sub> =V <sub>GS</sub> , I <sub>D</sub> =1mA	1	1.3	2.5	V			
Zero Gate Voltage Drain Current	loss	V <sub>DS</sub> =48V,V <sub>GS</sub> = 0V			1	μA			
Gate –Source leakage current	GSS1	V <sub>GS</sub> =±20V, V <sub>DS</sub> = 0V			±10	μA			
	RDS(on)	V <sub>GS</sub> = 4.5V, I <sub>D</sub> =200mA		1.1	5.3	Ω			
Drain-Source On-Resistance*		V <sub>GS</sub> =10V,I <sub>D</sub> =500mA		0.9	5	Ω			
Diode Forward Voltage	Vsd	V <sub>G</sub> s=0V, I <sub>S</sub> =300mA			1.5	V			
Recovered charge	Qr	Vgs=0V,Is=300mA,VR=25V, dls/dt=-100A/µs		30		nC			
Dynamic Characteristics**	•		-			•			
Input Capacitance	Ciss				40	pF			
Output Capacitance	Coss	V <sub>DS</sub> =10V,V <sub>GS</sub> =0V,f =1MHz			30	pF			
Reverse Transfer Capacitance	Crss				10	pF			
Switching Characteristics**									
Turn-On Delay Time	t <sub>d(on)</sub>	V <sub>G</sub> s=10V,V <sub>DD</sub> =50V,R <sub>G</sub> =50Ω,			10	ns			
Turn-Off Delay Time	t <sub>d(off)</sub>	R <sub>G</sub> s=50Ω, R <sub>L</sub> =250Ω			15	ns			
Reverse recovery Time	t <sub>rr</sub>	Ves=0V,Is=300mA,VR=25V, dls/dt=-100A/µs		30		ns			
GATE-SOURCE ZENER DIODE									
Gate-Source Breakdown Voltage	BVgso	I <sub>gs</sub> =±1mA (Open Drain)	±21.5		±30	V			

#### Notes :

<sup>\*</sup>Pulse Test : Pulse Width ≤300µs, Duty Cycle ≤2%.

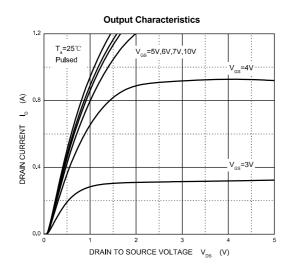
<sup>\*\*</sup>These parameters have no way to verify.

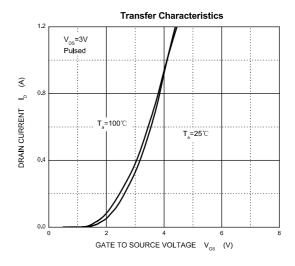


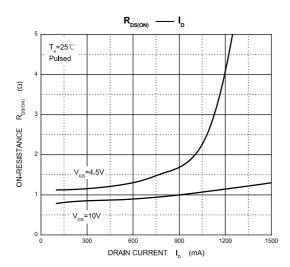
# 2N7002ED N-Channel MOSFET(ESD)

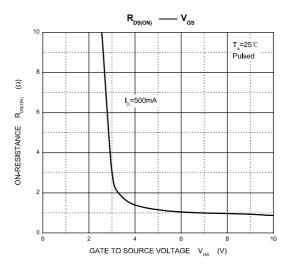
# **SOT-363 Plastic-Encapsulate MOSFETS**

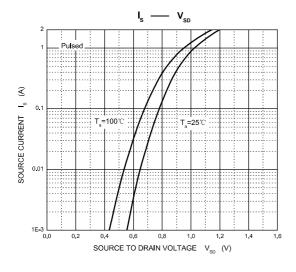
## **Typical Characteristics**

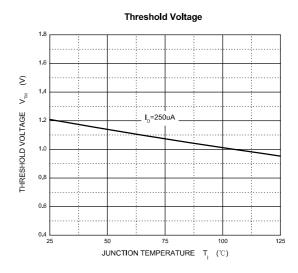






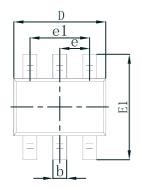


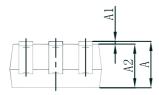




# **SOT-363 Plastic-Encapsulate MOSFETS**

## **SOT-363 Package Outline Dimensions**

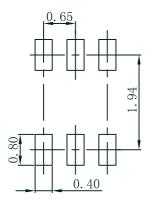






Symbol	Dimensions In Millimeters		Dimensions In Inches		
Зушьы	Min	Max	Min	Max	
Α	0.900	1.100	0.035	0.043	
A1	0.000	0.100	0.000	0.004	
A2	0.900	1.000	0.035	0.039	
b	0.150	0.350	0.006	0.014	
С	0.100	0.150	0.004	0.006	
D	2.000	2.200	0.079	0.087	
E	1.150	1.350	0.045	0.053	
E1	2.150	2.400	0.085	0.094	
е	0.650 TYP		0.026 TYP		
e1	1.200	1.400	0.047	0.055	
L	0.525 REF		0.021 REF		
L1	0.260	0.460	0.010	0.018	
θ	0°	8°	0°	8°	

## **SOT-363 Suggested Pad Layout**



#### Note:

- 1. Controlling dimension:in millimeters.
- 2.General tolerance:± 0.05mm.
- 3. The pad layout is for reference purposes only.

# **X-ON Electronics**

Largest Supplier of Electrical and Electronic Components

Click to view similar products for MOSFET category:

Click to view products by AnBon manufacturer:

Other Similar products are found below:

614233C 648584F MCH3443-TL-E MCH6422-TL-E FDPF9N50NZ FW216A-TL-2W FW231A-TL-E APT5010JVR NTNS3A92PZT5G IRF100S201 JANTX2N5237 2SK2464-TL-E 2SK3818-DL-E FCA20N60\_F109 FDZ595PZ STD6600NT4G FSS804-TL-E 2SJ277-DL-E 2SK1691-DL-E 2SK2545(Q,T) D2294UK 405094E 423220D MCH6646-TL-E TPCC8103,L1Q(CM 367-8430-0972-503 VN1206L 424134F 026935X 051075F SBVS138LT1G 614234A 715780A NTNS3166NZT5G 751625C 873612G IRF7380TRHR IPS70R2K0CEAKMA1 RJK60S3DPP-E0#T2 RJK60S5DPK-M0#T0 APT5010JVFR APT12031JFLL APT12040JVR DMN3404LQ-7 NTE6400 JANTX2N6796U JANTX2N6784U JANTXV2N5416U4 SQM110N05-06L-GE3 SIHF35N60E-GE3