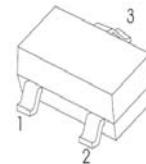
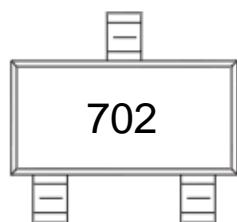


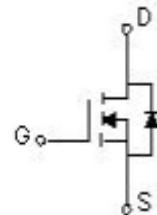
<b>V<sub>(BR)DSS</sub></b>	<b>R<sub>DS(on)MAX</sub></b>	<b>I<sub>D</sub></b>
60V	5Ω@10V	115mA
	7Ω@5V	

**SOT-23**

**FEATURE**

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

**MARKING**

**APPLICATION**

- Load Switch for Portable Devices
- DC/DC Converter

**Equivalent Circuit**

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

Parameter	Symbol	Value	Unit
Drain-Source Voltage	V <sub>DS</sub>	60	V
Gate-Source Voltage	V <sub>GS</sub>	20	V
Continuous Drain Current	I <sub>D</sub>	0.115	A
Power Dissipation	P <sub>D</sub>	0.225	W
Thermal Resistance from Junction to Ambient	R <sub>θJA</sub>	556	°C/W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-50 ~+150	

## MOSFET ELECTRICAL CHARACTERISTICS

$T_a=25^\circ\text{C}$  unless otherwise specified

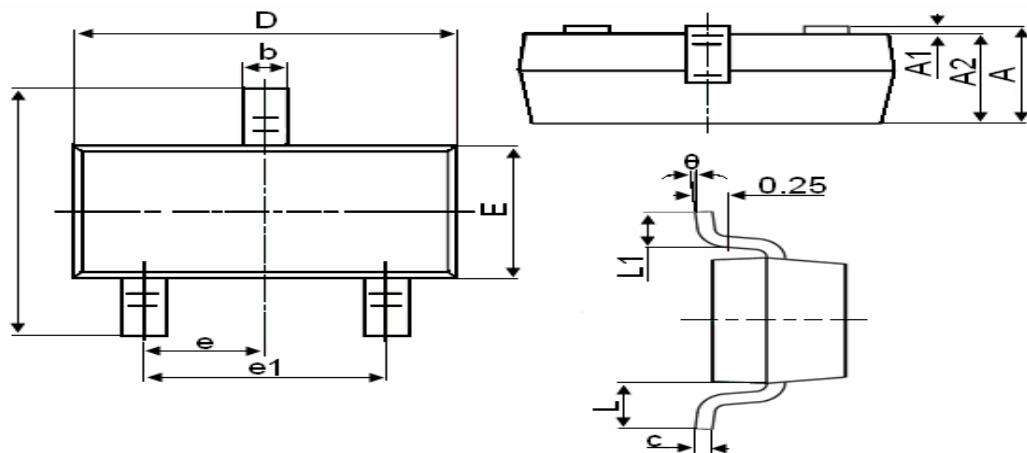
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
<b>Drain-Source Breakdown Voltage</b>	$V_{(\text{BR})\text{DSS}}$	$V_{\text{GS}}=0\text{ V}, I_D=250\text{ }\mu\text{A}$	60			V
<b>Gate-Threshold Voltage</b>	$V_{\text{th}(\text{GS})}$	$V_{\text{DS}}=V_{\text{GS}}, I_D=250\text{ }\mu\text{A}$	1		2.5	
<b>Gate-body Leakage</b>	$I_{\text{GSS}}$	$V_{\text{DS}}=0\text{ V}, V_{\text{GS}}=\pm 20\text{ V}$			$\pm 80$	nA
<b>Zero Gate Voltage Drain Current</b>	$I_{\text{DSS}}$	$V_{\text{DS}}=60\text{ V}, V_{\text{GS}}=0\text{ V}$			80	nA
<b>On-state Drain Current</b>	$I_{\text{D}(\text{ON})}$	$V_{\text{GS}}=10\text{ V}, V_{\text{DS}}=7\text{ V}$	500			mA
<b>Drain-Source On-Resistance</b>	$R_{\text{DS}(\text{on})}$	$V_{\text{GS}}=10\text{ V}, I_D=500\text{ mA}$			5	$\Omega$
		$V_{\text{GS}}=5\text{ V}, I_D=50\text{ mA}$			7	
<b>Forward Trans conductance</b>	$g_{\text{fs}}$	$V_{\text{DS}}=10\text{ V}, I_D=200\text{ mA}$	80			ms
<b>Drain-source on-voltage</b>	$V_{\text{DS}(\text{on})}$	$V_{\text{GS}}=10\text{ V}, I_D=500\text{ mA}$			3.75	V
		$V_{\text{GS}}=5\text{ V}, I_D=50\text{ mA}$			0.375	V
<b>Diode Forward Voltage</b>	$V_{\text{SD}}$	$I_S=115\text{ mA}, V_{\text{GS}}=0\text{ V}$	0.55		1.2	V
<b>Input Capacitance *</b>	$C_{\text{iss}}$	$V_{\text{DS}}=25\text{ V}, V_{\text{GS}}=0\text{ V}, f=1\text{ MHz}$			50	pF
<b>Output Capacitance *</b>	$C_{\text{oss}}$				25	
<b>Reverse Transfer Capacitance *</b>	$C_{\text{rss}}$				5	

## SWITCHING TIME

<b>Turn-on Time *</b>	$t_{\text{d}(\text{on})}$	$V_{\text{DD}}=25\text{ V}, R_L=50\Omega, I_D=500\text{ mA}, V_{\text{GEN}}=10\text{ V}$			20	ns
<b>Turn-off Time *</b>	$t_{\text{d}(\text{off})}$	$R_G=25\Omega$			40	

\*These parameters have no way to verify.

### SOT-23 Package Information



Symbol	Dimensions in Millimeters	
	MIN.	MAX.
A	0.900	1.150
A1	0.000	0.100
A2	0.900	1.050
b	0.300	0.500
c	0.080	0.150
D	2.800	3.000
E	1.200	1.400
E1	2.250	2.550
e	0.950TYP	
e1	1.800	2.000
L	0.550REF	
L1	0.300	0.500
θ	0°	8°

### Notes

1. All dimensions are in millimeters.
2. Tolerance  $\pm 0.10\text{mm}$  (4 mil) unless otherwise specified
3. Package body sizes exclude mold flash and gate burrs. Mold flash at the non-lead sides should be less than 5 mils.
4. Dimension L is measured in gauge plane.
5. Controlling dimension is millimeter, converted inch dimensions are not necessarily exact.

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