



Product Summary

$BV_{DSS}$	- 30V
$R_{DS(ON)}$	60 mΩ
$I_D$	- 2.0A

Application

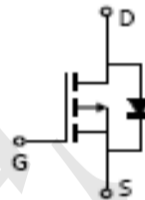
- Load/Power Switching
- Interfacing Switching
- Logic Level Shift

Package and Pin Configuration

SOT-23



Circuit diagram



Marking: 360P or B11

Absolute Maximum Ratings ( $T_A=25^\circ\text{C}$  unless otherwise noted)

Symbol	Parameter	Max.	Units
$V_{DSS}$	Drain-Source Voltage	-30	V
$V_{GSS}$	Gate-Source Voltage	$\pm 20$	V
$I_D$	Continuous Drain Current $T_A = 25^\circ\text{C}$	-2	A
$I_{DM}$	Pulsed Drain Current <sup>note1</sup>	-15	A
$P_D$	Power Dissipation $T_A = 25^\circ\text{C}$	1.2	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient	125	$^\circ\text{C}/\text{W}$
$T_J, T_{STG}$	Operating and Storage Temperature Range	-55 to +150	$^\circ\text{C}$

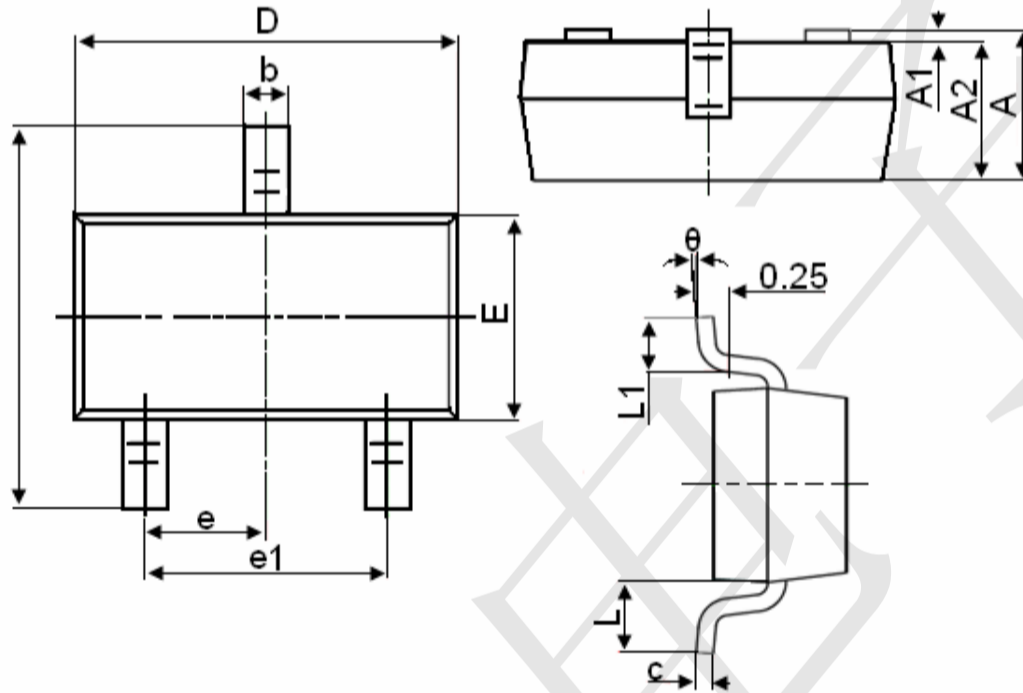


**Electrical Characteristics (  $T_A = 25^\circ\text{C}$  unless otherwise noted )**

Symbol	Parameter	Test Condition	Min.	Typ.	Max.	Units
<b>Off Characteristic</b>						
$V_{(BR)DSS}$	Drain-Source Breakdown Voltage	$V_{GS}=0V, I_D = -250\mu A$	-30	-	-	V
$I_{DSS}$	Zero Gate Voltage Drain Current	$V_{DS} = -20V, V_{GS} = 0V,$	-	-	-1	$\mu A$
$I_{GSS}$	Gate to Body Leakage Current	$V_{DS} = 0V, V_{GS} = \pm 20V$	-	-	$\pm 100$	nA
<b>On Characteristics</b>						
$V_{GS(th)}$	Gate Threshold Voltage	$V_{DS} = V_{GS}, I_D = -250\mu A$	-1.0	-	-3.0	V
$R_{DS(on)}$	Static Drain-Source on-Resistance <small>note2</small>	$V_{GS} = -4.5V, I_D = -2.2A$	-	60	90	m $\Omega$
		$V_{GS} = -2.5V, I_D = -2.0A$	-	80	110	
$V_{SD}$	Drain to Source Diode Forward Voltage				-1.2	V
<b>Dynamic Characteristics</b>						
$C_{iss}$	Input Capacitance	$V_{DS} = -10V, V_{GS} = 0V,$ $f = 1\text{ MHz}$	-	300	-	pF
$C_{oss}$	Output Capacitance		-	145	-	pF
<b>Switching Characteristics</b>						
$t_{d(on)}$	Turn-on Delay Time	$(V_{DS} = 5V, V_{GS} = 4.5V,$ $, R_{GEN} = 6\Omega)$	-	5	-	ns
$t_{d(off)}$	Turn-off Delay Time		-	17	-	ns



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
$\theta$	0°	8°