

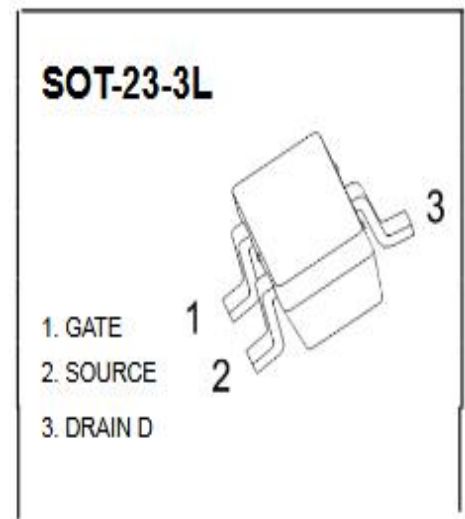
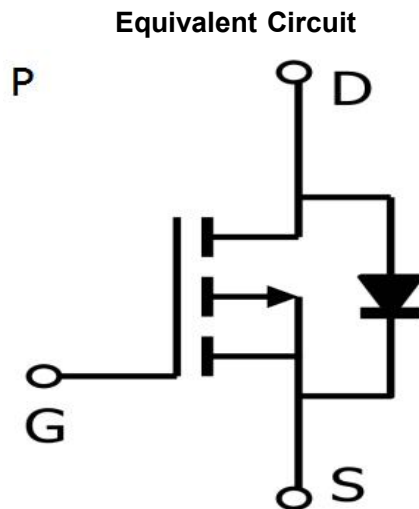
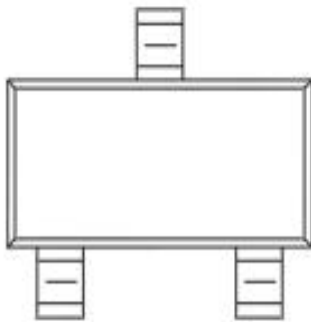
**SOT-23-3L Plastic-Encapsulate MOSFETS**
**BY2327**
**P-Channel 20-V(D-S) MOSFET**

V(BR)DSS	RDS(on)MAX	ID
-20 V	21mΩ@-4.5V	-7A
	25mΩ@-2.5V	

**FEATURE**

※ TrenchFET Power MOSFET

**APPLICATION**

 ※ Load Switch for Portable Devices  
 ※ DC/DC Converter

**Maximum ratings ( Ta=25°C unless otherwise noted)**

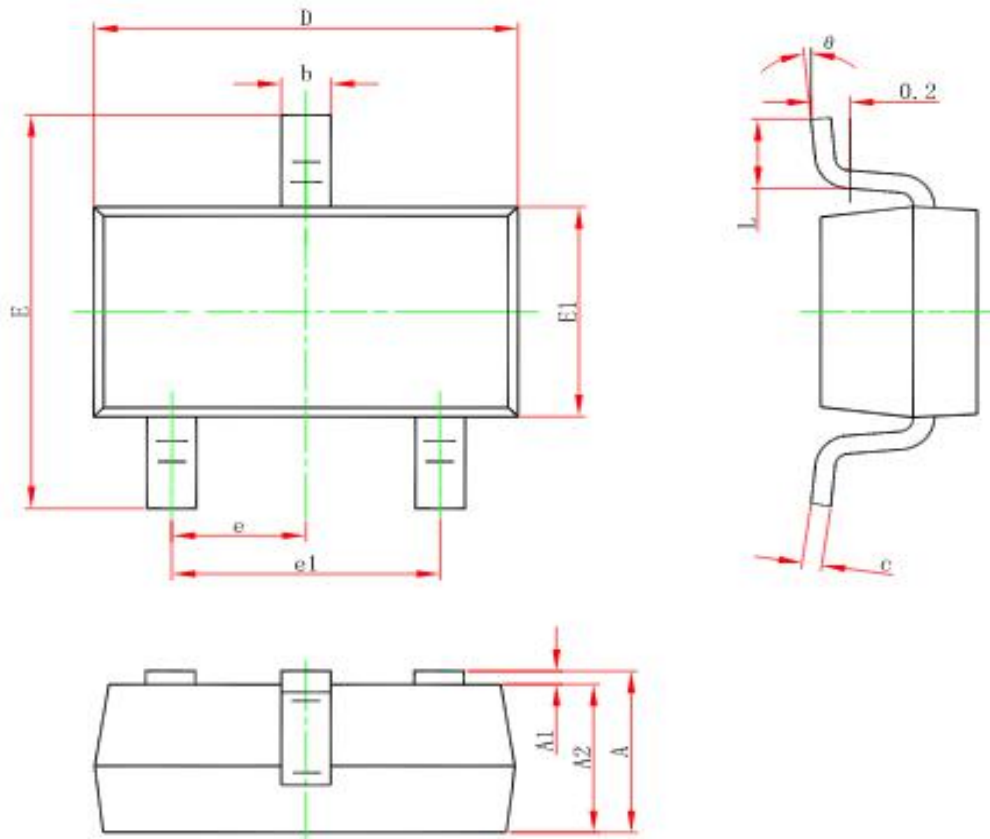
Parameter	Symbol	Value	Unit
Drain-Source Voltage	VDS	-20	V
Gate-Source Voltage	VGS	±8	
Continuous Drain Current	ID	-7	A
Pulsed Diode Current	IDM	-20	
Continuous Source-Drain Current(Diode Conduction)	IS	-0.8	
Power Dissipation	PD	1.25	W
Thermal Resistance from Junction to Ambient (t≤5s)	RθJA	125	°C/W
Operating Junction	TJ	150	°C
Storage Temperature	TSTG	-55~+150	°C

**MOSFET ELECTRICAL CHARACTERISTICS**
**Static Electrical Characteristics (Ta = 25 °C Unless Otherwise Noted)**

Parameter	Symbol	Test Condition	Min	Typ	Max	Unit
<b>Static</b>						
Drain-source breakdown voltage	V(BR)DSS	VGS = 0V, ID = -250μA	-20			V
Gate-source threshold voltage	VGS(th)	VDS = VGS, ID = -250μA	-0.4		-1.4	V
Gate-source leakage	IGSS	VDS = 0V, VGS = ±8V			±100	nA
Zero gate voltage drain current	IDSS	VDS = -20V, VGS = 0V			-1	μA
Drain-source on-state resistancea	RDS(on)	VGS = -4.5V, ID = -7A		19.5	21	mΩ
		VGS = -2.5V, ID = -3A		22	25	mΩ
Forward transconductancea	gfs	VDS = -4.5V, ID = -7A		4		S
Diode forward voltage	VSD	IS=-1A,VGS=0V		-0.8	-1.5	V
<b>Dynamic</b>						
Input capacitance	Ciss	VDS = -10V, VGS = 0V, f=1MHz		2000		pF
Output capacitance	Coss			800		pF
Reverse transfer capacitanceb	Crss					pF
Total gate charge	Qg	VDS = -10V, VGS = -4.5V, ID = -7A				nC
Gate-source charge	Qgs					nC
Gate-drain charge	Qgd					nC
Gate resistance	Rg	f=1MHz				Ω
<b>Switchingb</b>						
Turn-on delay time	td(on)	VDS= -10V RL=10Ω, ID ≈ -3A, VGEN= -4.5V,Rg=6Ω		20		ns
Rise time	tr					ns
Turn-off delay time	td(off)			300		ns
Fall time	tf					ns
<b>Drain-source body diode characteristics</b>						
Continuous Source-Drain Diode Current	IS	Tc=25°C			-1.4	A
Pulsed Diode forward Curren	ISM				-20	A

**Note :**

1. Repetitive Rating : Pulse width limited by maximum junction temperature.
2. Surface Mounted on FR4 Board, t < 5 sec.
3. Pulse Test : Pulse Width ≤ 300μs, Duty Cycle ≤ 2%.
4. Guaranteed by design, not subject to production testing.

**SOT-23-3L PACKAGE OUTLINE DIMENSIONS**


Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	1.050	1.250	0.041	0.049
A1	0.000	0.100	0.000	0.004
A2	1.050	1.150	0.041	0.045
b	0.300	0.500	0.012	0.020
c	0.100	0.200	0.004	0.008
D	2.820	3.020	0.111	0.119
E1	1.500	1.700	0.059	0.067
E	2.650	2.950	0.104	0.116
e	0.950(BSC)		0.037(BSC)	
e1	1.800	2.000	0.071	0.079
L	0.300	0.600	0.012	0.024
θ	0°	8°	0°	8°