



JSPL0240AS

0.2A Schottky Barrier Rectifier

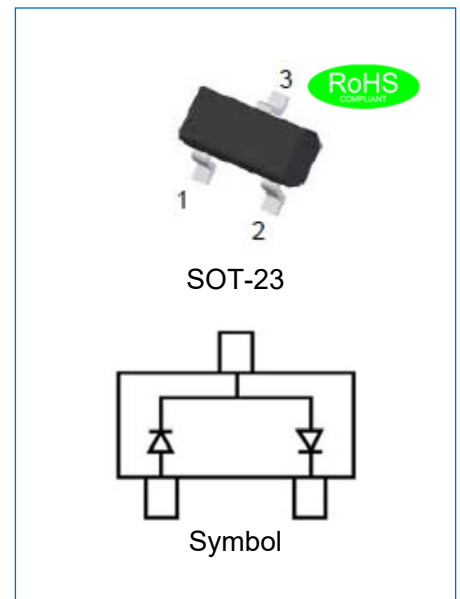
Rev.1.0

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ Ultra low forward voltage drop
- ✧ Low power losses, high efficiency operation
- ✧ High current capability and surge capability
- ✧ Extremely fast switching speed
- ✧ Low thermal resistance package

MECHANICAL DATA

- ✧ Case: SOT-23 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002



ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	JSPL0240AS	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	40	V
Maximum working reverse voltage	V_{RWM}	40	V
Maximum DC blocking voltage	V_{DC}	40	V
Forward continuous current	I_{FM}	200	mA
Average rectified output current	I_o	200	mA
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	0.6	A
Power dissipation	P_D	200	mW
Maximum junction capacitance $V_R=0V, f=1MHz$	C_J	5	pF
Operating junction temperature range	T_j	-55 to +125	°C
Storage temperature range	T_{stg}	-55 to +150	°C

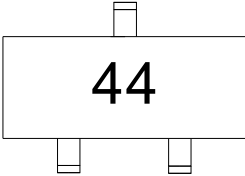
**ELECTRICAL CHARACTERISTICS** (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$I_R=10\mu\text{A}$	V_{BR}	40	-	-	V
Reverse leakage current	$V_R=30\text{V}$	I_R	-	-	200	nA
Forward voltage	$I_F=1\text{mA}$	V_F	-	-	380	mV
	$I_F=40\text{mA}$		-	-	1000	
Reverse recovery time	$I_{rr}=1\text{mA}$, $I_R=I_F=10\text{mA}$, $R_L=100\Omega$	t_{rr}	-	-	5	ns

THERMAL RESISTANCES

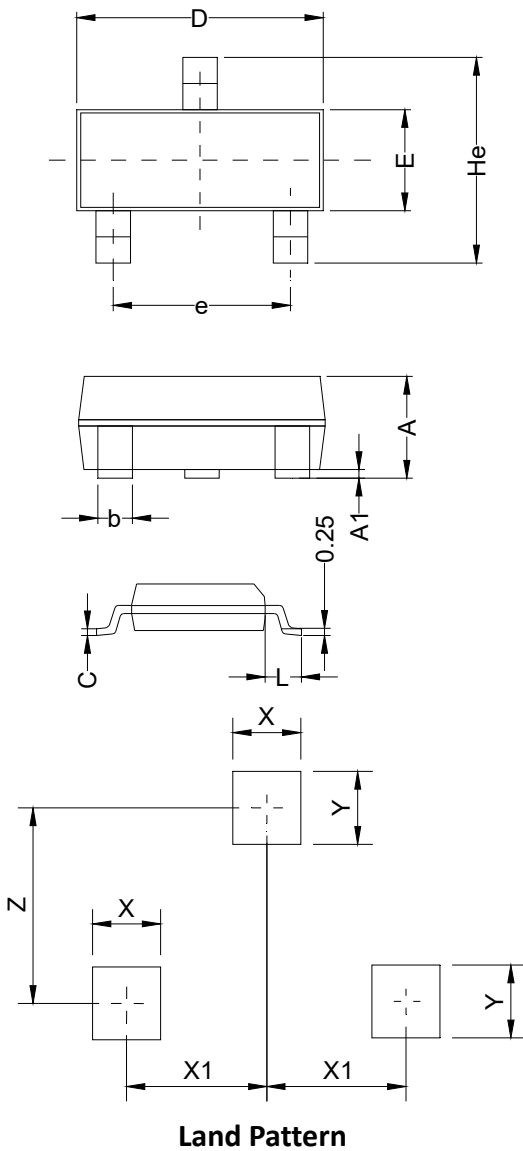
Symbol	Parameter	JSPL0240AS	Unit
$R_{th(j-a)}$	Thermal resistance from junction to ambient	500	°C/W

MARKING

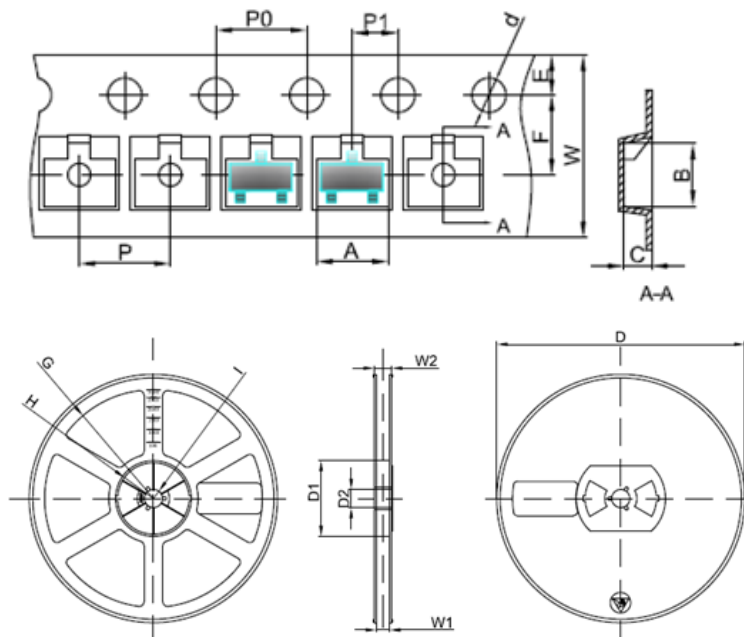
Part Number	Marking Code
JSPL0240AS	



PACKAGE MECHANICAL DATA



Symbol	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	0.90	1.063	1.15	0.035	0.042	0.045
A1	0.00	0.075	0.14	0.000	0.003	0.006
b	0.30	0.40	0.50	0.012	0.016	0.020
C	0.07	0.10	0.15	0.003	0.004	0.006
D	2.80	2.90	3.00	0.110	0.114	0.118
e	1.80	1.90	2.00	0.071	0.075	0.079
E	1.20	1.30	1.40	0.047	0.051	0.055
L	0.55REF			0.022REF		
He	2.25	2.40	2.55	0.089	0.094	0.100
X	0.80			0.031		
X1	0.95			0.037		
Y	0.80			0.031		
Z	2.02			0.080		

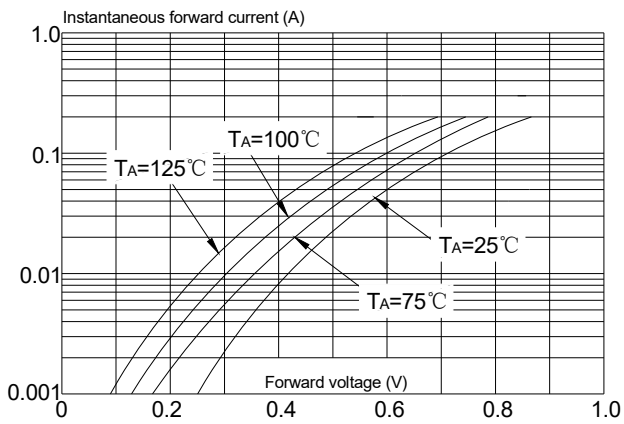
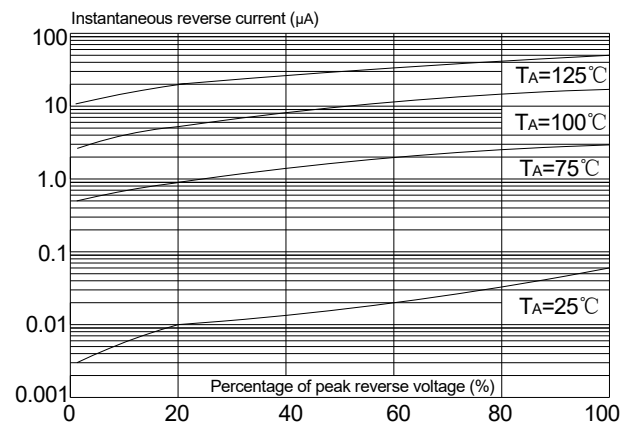
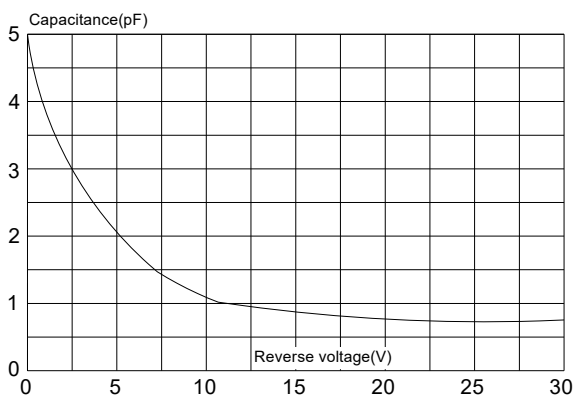
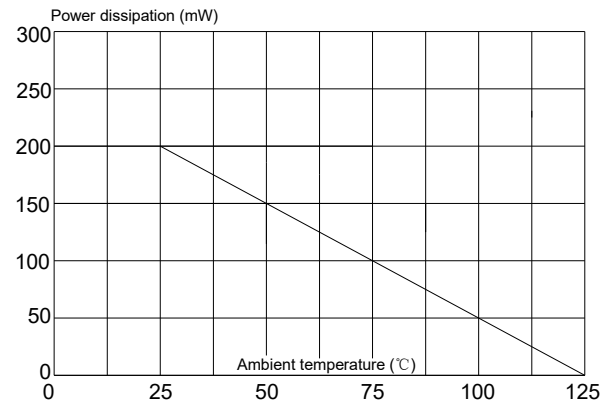
TAPE AND REEL SPECIFICATION-SOT-23

Packaging Description:

SOT-23 parts are shipped in tape. The carrier tape is made from a dissipative(carbon filled) polycarbonate resin. The cover tape is a multilayer film(heat activated adhesive in nature)primarily composed of polyester film, adhesive layer, sealant, and anti-static sprayed agent. These reeled parts in standard option are shipped with 3,000units per 7" or 17.8cm diameter reel. The reels are clear in color and made of polystyrene plastic(anti-static coated).

Symbol	Millimeters	Inches
	Typ.	Typ.
A	3.15	0.124
B	2.77	0.109
C	1.22	0.048
d	Φ1.50	Φ0.059
E	1.75	0.069
F	3.50	0.138
P0	4.00	0.157
P	4.00	0.157
P1	2.00	0.079
W	8.00	0.315
D	Φ178	Φ7.008
D1	54.40	2.142
D2	13.00	0.512
G	R78.00	R3.071
H	R25.60	R1.008
I	R6.50	R0.256
W1	9.50	0.374
W2	12.30	0.484

ORDERING INFORMATION

OUTLINE	PACKAGE TYPE	QUANTITY REEL	DESCRIPTION
TAPING	SOT-23	3,000	7 inch reel pack

CHARACTERISTICS CURVE
FIG.1: Typical forward characteristics

FIG.2: Typical reverse characteristics

FIG.3: Maximum junction capacitance

FIG.4: Power derating curve





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