

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

ESDLIN1524BJ-MS

Product specification

Features

- 160 Watts Peak Pulse Power per Line ($t_p = 8/20\mu s$)
- Replacement for MLV
- Protects one I/O or power line
- Low Clamping Voltage
- Low Leakage Current

IEC COMPATIBILITY (EN61000-4)

- IEC 61000-4-2 (ESD) $\pm 30kV$ (air), $\pm 30kV$ (contact)
- IEC 61000-4-4 (EFT) 40A (5/50ns)
- IEC 61000-4-5 (Lightning) 5A/3.5A (8/20 μs)

Mechanical Characteristics

- JEDEC SOD-323 package
- RoHS Compliant & HF
- Device meets MSL1 requirement

Applications

- LIN bus protection
- Automotive application

Reference News

SOD-323	GRAPHIC SYMBOL	MARKING
		

Absolute Maximum Rating

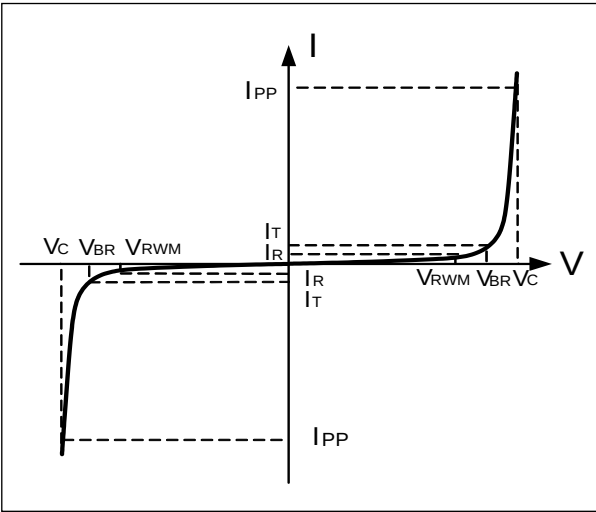
Rating	Symbol	Value	Units
Peak Pulse Power ($t_p = 8/20\mu s$)	P_{PP}	160	Watts
Peak Pulse Current ($t_p = 8/20\mu s$)	I_{pp}	5	A
Operating Temperature	T_J	-55 to +125	$^{\circ}C$
Storage Temperature	T_{STG}	-55 to +150	$^{\circ}C$

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

ESDLIN1524BJ-MS			Pins 1 to 2(15V TVS)			Pins 2 to 1 (24V TVS)			
Parameter	Symbol	Conditions	MIN	TYP	MAX	MIN	TYP	MAX	Units
Reverse Stand-Off Voltage	V_{RWM}	Pin 1 to 2 or Pin 2 to 1			15			24	V
Reverse Breakdown Voltage	V_{BR}	$I_R = 1mA$	16.5		24	25.4		32	V
Reverse Leakage Current	I_R	$V_R = V_{RWM}$			100			100	nA
Clamping Voltage	V_C	$I_{PP} = 5A$, $t_p = 8/20\mu s$			44				V
Clamping Voltage	V_C	$I_{PP} = 3.5A$, $t_p = 8/20\mu s$						70	V
Junction Capacitance	C_j	$V_R = 0V$, $f = 1MHz$		13	20		10	20	pF

Electrical Parameters

Symbol	Parameter
I_{PP}	Reverse Peak Pulse Current
V_C	Clamping Voltage @ I_{PP}
V_{RWM}	Reverse Stand-Off Voltage
I_R	Reverse Leakage Current @ V_{RWM}
V_{BR}	Breakdown Voltage @ I_T
I_T	Test Current



Typical Characteristics

Figure 1: Peak Pulse Power vs. Pulse Time

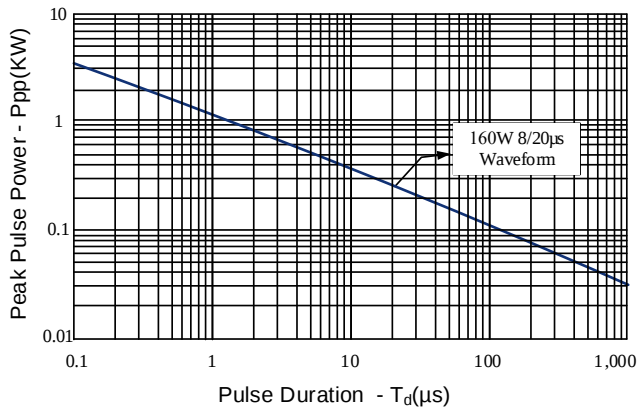


Figure 2: Power Derating Curve

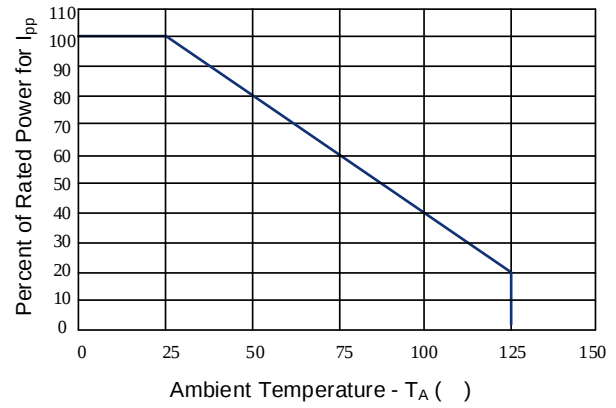


Figure 3: Clamping Voltage vs. Peak Pulse Current

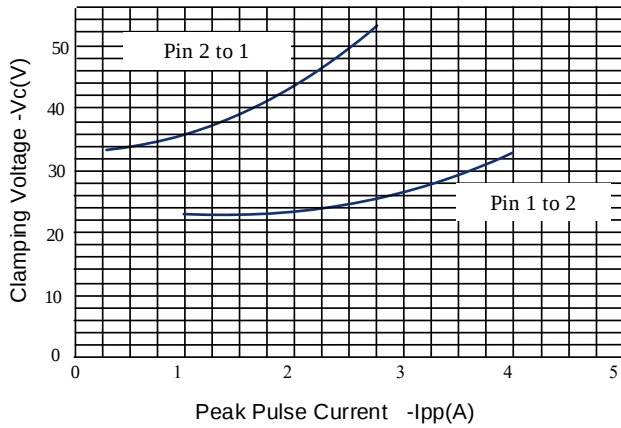
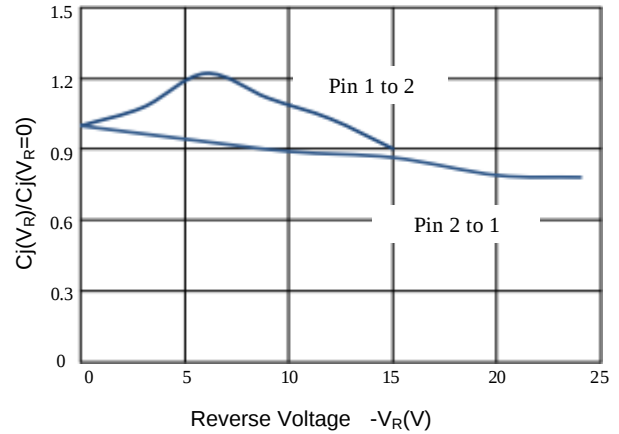
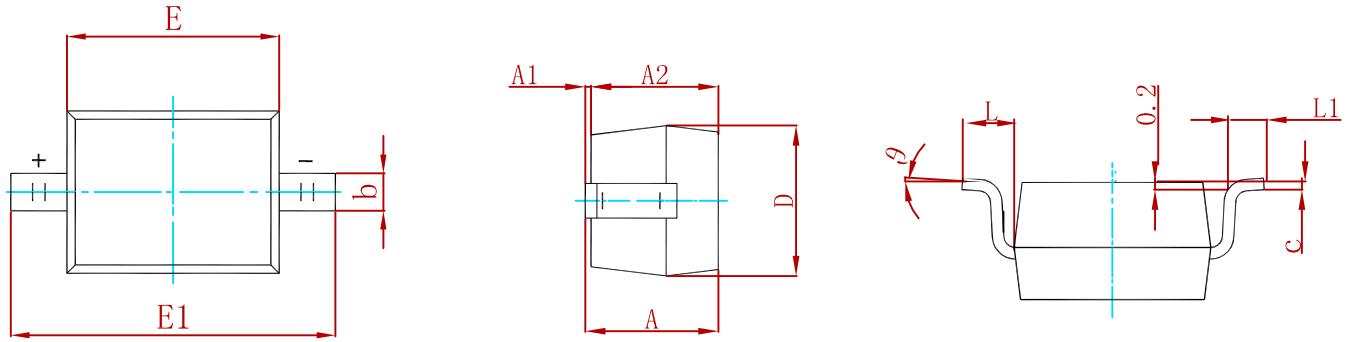


Figure 4: Normalized Junction Capacitance vs. Reverse Voltage

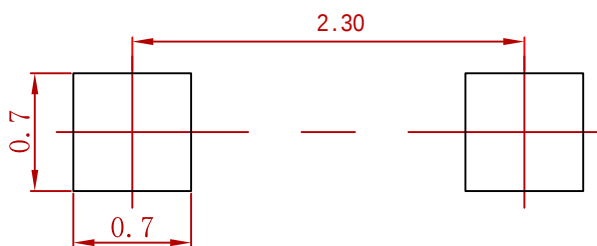


PACKAGE MECHANICAL DATA



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A		1.050		0.039
A1	0.000	0.100	0.000	0.004
A2	0.800	0.950	0.031	0.035
b	0.250	0.350	0.010	0.014
c	0.080	0.150	0.003	0.006
D	1.200	1.400	0.047	0.055
E	1.600	1.800	0.063	0.071
E1	2.550	2.750	0.100	0.108
L	0.475 REF.		0.019 REF.	
L1	0.250	0.450	0.010	0.016
θ	0°	8°	0°	8°

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: $\pm 0.05\text{mm}$.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
ESDLIN1524BJ-MS	SOD-323	3000

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