

DESCRIPTION

The SE23T30B24B is a standard capacitance transient voltage suppressor array, designed to protect applications such as portable electronics and SMART phones. It is rated at 300 Watts for an 8/20 μ s waveshape.

The SE23T30B24B meets IEC 61000-4-2 (ESD) and IEC 61000-4-4 (EFT) requirements . At higher operating frequencies or faster edge rates, insertion loss and signal integrity are a major concern. This product offers a low leakage current in a miniature SOT-23 package.

FEATURES

- >300 Watts Peak Pulse Power per Line (tp=8/20 μ s)
- >Ultra low leakage: nA level
- >Operating voltage: 24V
- >Low clamping voltage
- >Weight: 8.0mg

APPLICATIONS

- >USB 2.0 power and data line
- >Set-top box and digital TV
- >Digital video interface (DVI)
- >Notebook Computers
- >SIM Ports
- >10/100 Ethernet

IEC COMPATIBILITY

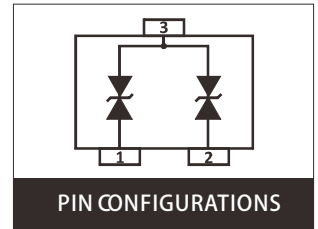
- >IEC61000-4-2 (ESD) \pm 30kV (air), \pm 30kV (contact)
- >IEC61000-4-4 (EFT) 40A (5/50ns)
- >IEC61000-4-5 (Lightning) 5A (8/20 μ s)

MAXIMUM RATINGS @ 25° C UNLESS OTHERWISE SPECIFIED

PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20 μ s waveform)	PPP	300	Watts
Lead Soldering Temperature	T _L	260(10 sec.)	°C
Operating Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	°C

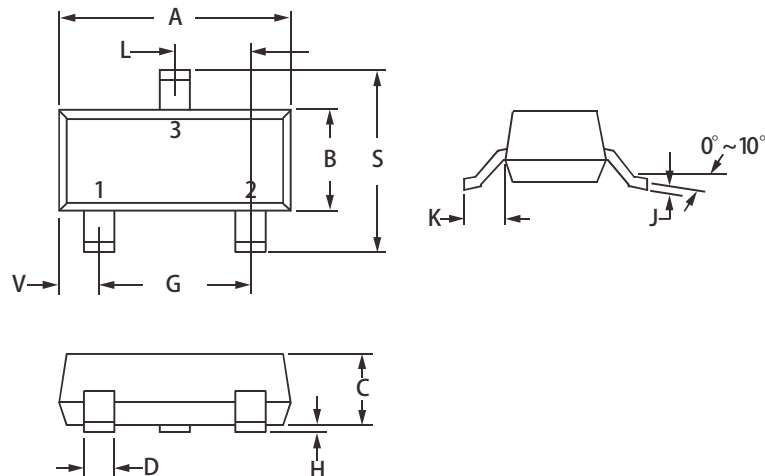
ELECTRICAL CHARACTERISTICS PER LINE @ 25° C UNLESS OTHERWISE SPECIFIED

PART NUMBER	DEVICE MARKING	V _{RWM} (V) Max.	V _{BR} (V) Min.	I _T (mA)	V _C @1A Max.	V _C		I _R (μ A) Max.	C _T (pF) Typ.
						Max.	@A		
SE23T30B24B	24M	24.0	32.0	1	40.0	45.0	5.0	0.2	25



SOT-23 PACKAGE INFORMATION

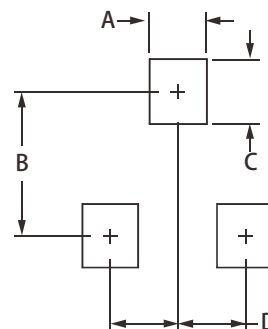
OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	2.80	3.04	0.110	0.120
B	1.20	1.40	0.047	0.055
C	0.89	1.11	0.035	0.044
D	0.37	0.50	0.015	0.020
G	1.78	2.04	0.070	0.081
H	0.013	0.100	0.001	0.004
J	0.085	0.177	0.003	0.007
K	0.45	0.60	0.018	0.024
L	0.89	1.02	0.035	0.040
S	2.10	2.50	0.083	0.098
V	0.45	0.60	0.018	0.024



NOTES

- Controlling dimension: inches.
- Dimensions are exclusive of mold flash and metal burrs.

PAD LAYOUT DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.71	0.97	0.028	0.038
B	1.88	2.13	0.074	0.084
C	0.71	0.97	0.028	0.038
D	0.81	1.07	0.032	0.042

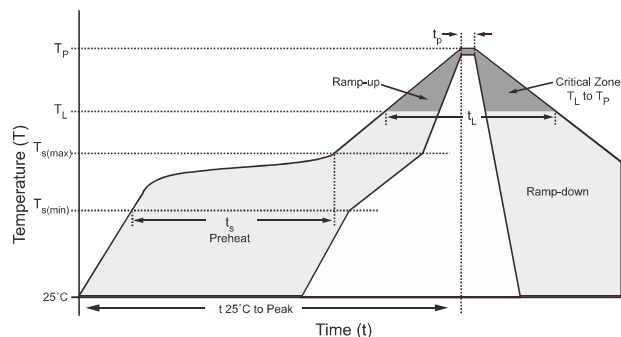


NOTES

- Controlling dimension: inches.

SOLDERING PARAMETERS

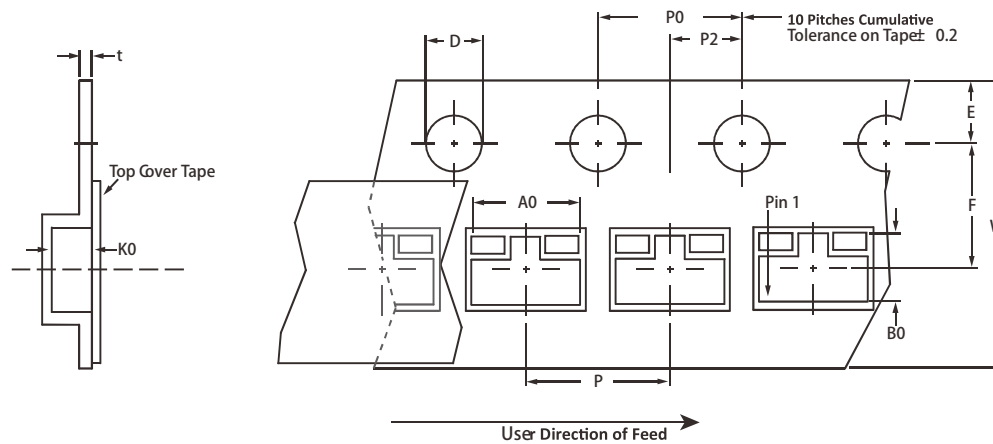
Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min (Ts(min))	150°C
	Temperature Max (Ts(max))	200°C
	Time (min to max) (ts)	60 – 180 secs
Average ramp up rate (Liquidus Temp (TL) to peak)		3°C/second max
Ts(max) to TL - Ramp-up Rate		3°C/second max
Reflow	Temperature (TL) (Liquidus)	217°C
	Time (min to max) (ts)	60 – 150 seconds
Peak Temperature (TP)		260°C
Time within 5°C of actual peak Temperature (tp)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (TP)		8 minutes Max.
Do not exceed		260°C



ENVIRONMENTAL CHARACTERISTICS

Testing Items	Technical Standards
High Temperature Reverse Bias Test	Temperature:150±3℃;Bias=80%V _{DRM} ;Time:168H
High Temperature Life Test	Temperature:150℃;Time:168H
High-Low Temperature Cycle Test	Temperature:From -40℃ to 150℃;Dwell Time:30min,10-100 Cycles
High Temperature&High Humidity Test	Temperature:85℃.Humidity:85%; Time:168H
Pressure Cooker Test	Temperature:121℃,2 atm.Humidity:100%; Time:24H To 168H
Resistance Of Soldering Heat	Temperature:260±5℃;Time Of Dip Soldering:10s,3 Times

TAPE AND REEL



SPECIFICATIONS												
REEL DIA.	TAPE WIDTH	A0	B0	K0	D	E	F	W	P0	P2	P	tmax
178mm (7")	8mm	3.15 ± 0.10	2.77 ± 0.10	1.30 ± 0.10	1.55 ± 0.10	1.75 ± 0.10	3.50 ± 0.05	8.00 ± 0.30	4.00 ± 0.10	2.00 ± 0.05	4.00 ± 0.10	0.228
NOTES 1. Dimensions are in millimeters. 2. Surface mount product is taped and reeled in accordance with EIA-481.												

ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
SE23T30B24B	SOT-23	3000PCS	7"

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