

FrelTec

Mathildenstr. 10A
82319 Starnberg
Germany

FrelTec

ESD
SOD523

SOD523

SPECIFICATION

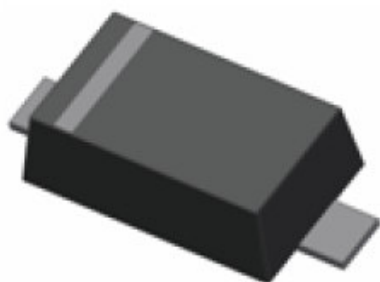
631	ESD5Z12Vxx	SD53	E03
Type	Type	Package	Packing
631: ESD	ESD5Z12V	SOD523	E03: Embossed tape and reel for 3k pc (7'Reel)

All products according to RoHS (2015/863/EU)

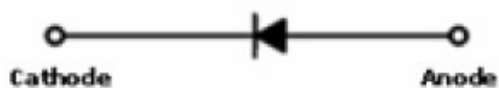
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PACKAGE OUTLINE

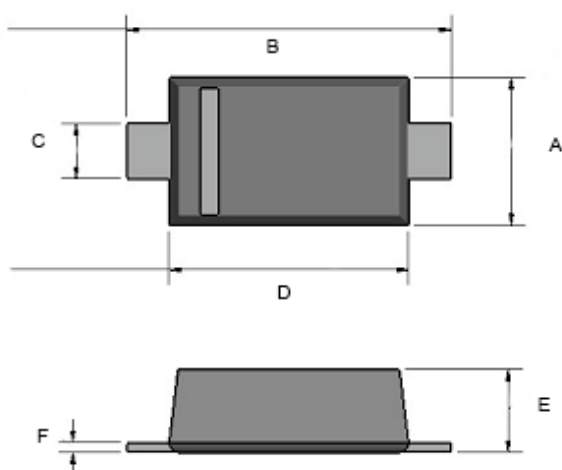
Green Product



SOD-523 Flat Lead



ELECTRICAL SYMBOL



DIM.	Unit(mm)	
	Min	Max
A	0,70	0,90
B	1,50	1,70
C	0,25	0,35
D	1,10	1,30
E	0,50	0,70
F		0,02

SOD523

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

Symbol	Parameter	Value	Units
V_{pp}	IEC61000-4-2(ESD) Air Contact	± 15 ± 8	KV
E_{SD}	Per Human Body Model	16	KV
P_D	Power Dissipation (Note 1)	150	mW
T_{STG}	Storage Temperature Range	-55 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	+150	$^\circ\text{C}$
T_L	Max Lead Solder Temperature range (10 Second Duration)	260	$^\circ\text{C}$

These ratings are limiting values above which the serviceability of the diode may be impaired.
Note 1. FR-5 = 1.0 x 0.75 x 0.62 in.

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

Device Type	V_{RWM} (Volts)	$I_R @ V_{RWM}$ (μA)	$V_{BR} @ I_T$ (Note 2) (Volts)	I_T (mA)	$V_C @ I_{PP+}$ (Volts)	I_{PP+} (A)	P_{PK+} (W)	$C @ V_R = 0V,$ $f = 1\text{MHz}$ (pF)
	Max	Max	Min		Max	Max	Max	Typ,
ESD5Z12V	12	1	13,5	1,0	30	5	95	55

SURGE CURRENT WAVEFORM:

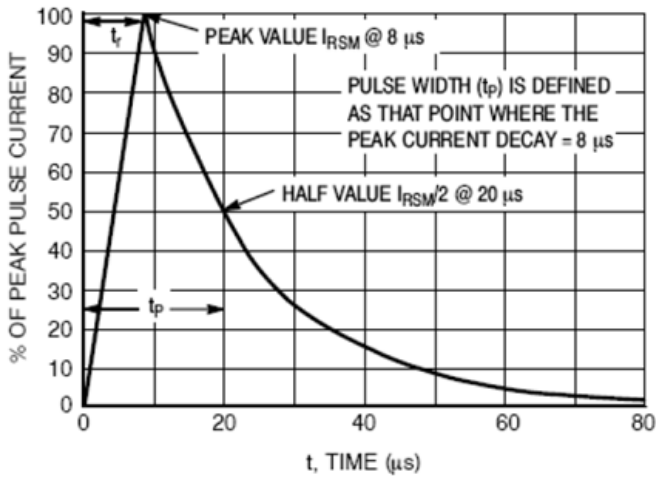
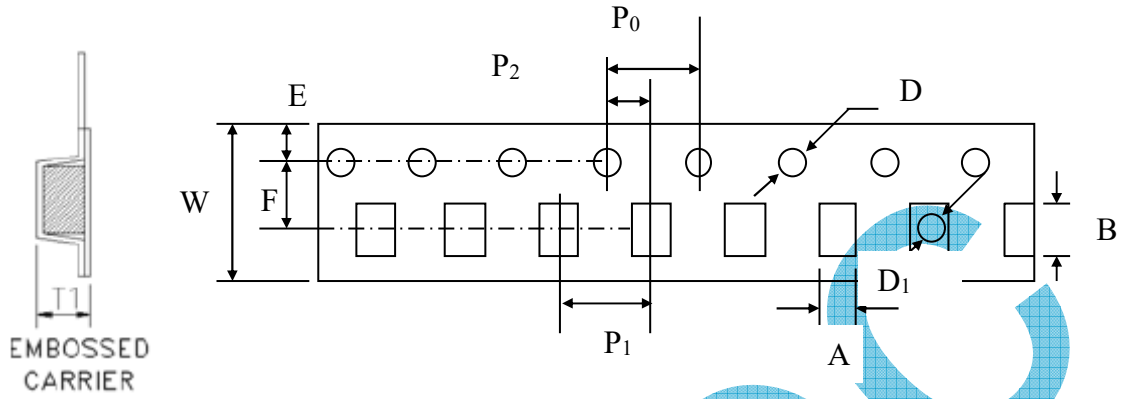


Figure 1. 8 x 20 µs Pulse Waveform

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Tape And Reel Package



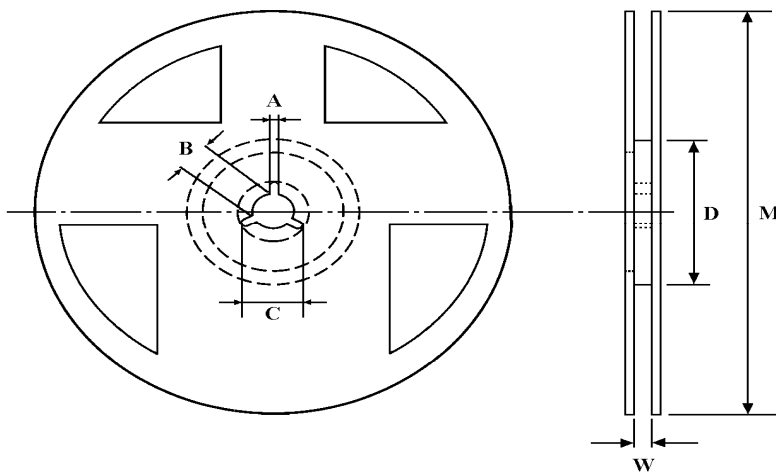
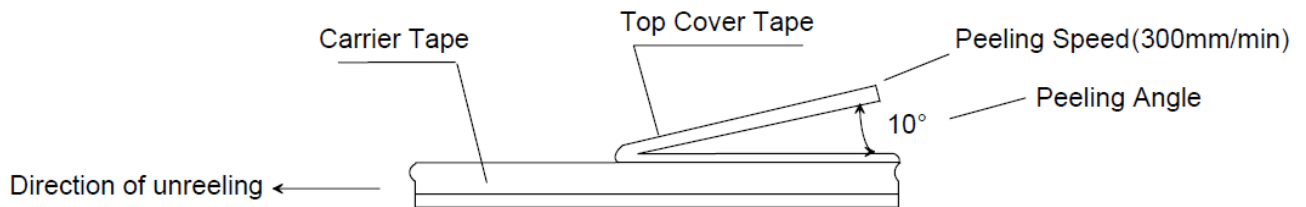
Type	A	B	W	E	F	P ₀	P ₁	P ₂	ΦD	ΦD ₁	T1
	1,85 ±0,1	3,94 ±0,1	8 ±0,30	1,75±0,01	3,5 ±0,05	4,00±0,10	4,00±0,10	2,00±0,05	1,55±0,03	1,5	1,58 ±0,1

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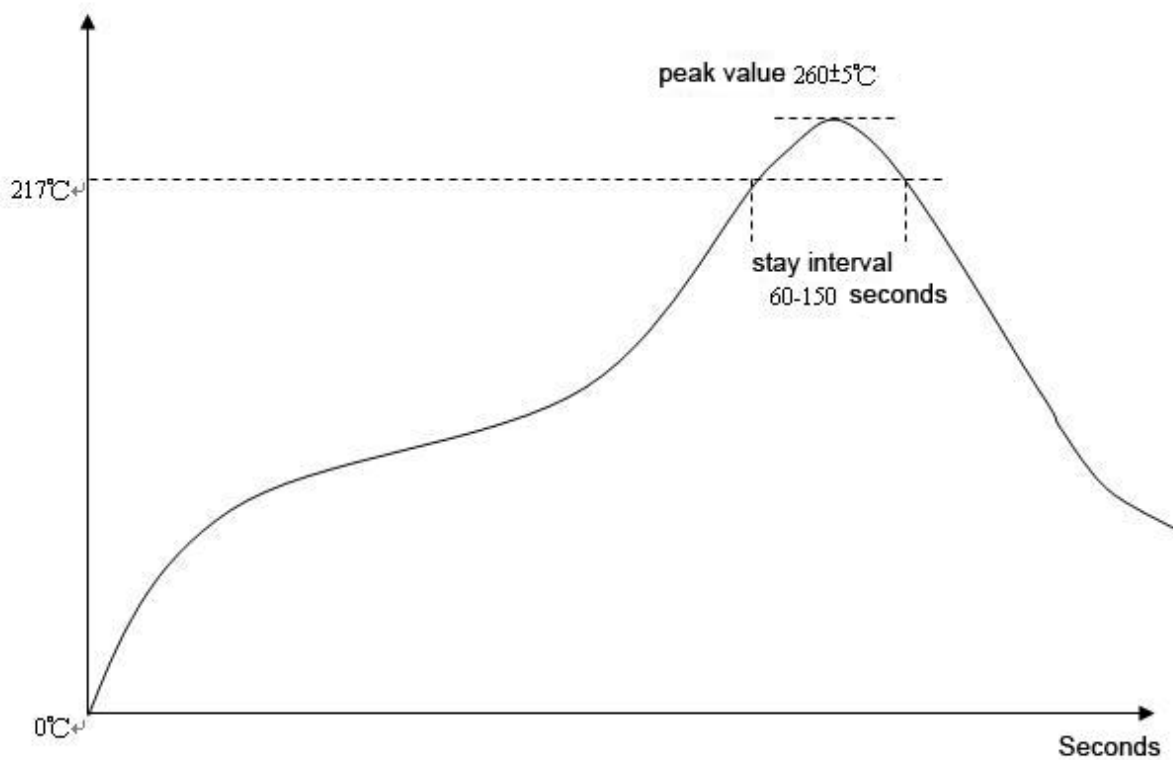
Cover Tape Peel off Strength

Specifications: peel force of top cover tape shall be between 8 to 40g
The peel speed shall be about 300mm/min±5%



Type	Packaging	M	A	B	C	D	W	T
	Embossed	178,0±1,0	2±0,5	13,5±0,7	21±0,5	60,0+1,0	13,5±1,0	15,5±1,0

Lead Free Reflow Soldering Profile



Stock period

The performance of these products, including the solderability, is guaranteed for 12 month, provided that they remain packed as they were when delivered and stored at a temperature of $25^{\circ}\text{C} \pm 3^{\circ}\text{C}$ and a relative humidity less than 80%RH

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