SSCT25V32DX

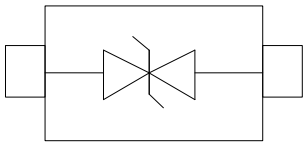
This device has been especially designed to protect 1 low voltage or signal line, as well as Power line Communication Circuit interface, against transient over-voltages.

Over-voltage noise are clamped by 2 TVS diodes. Surges are suppressed by 2 thyristors, their breakdown voltage close to 30V,then their leakage current as low as 1uA.

This devices series is designed specifically to protect Power line Communication Circuit from voltage transients induced by lightning and other transient voltage events.

Features

- Integrated the two TVS diodes and two thyristor
- Accurate voltage of protection
- Low switching voltages: V_{BR}
- Low leakage current: I_R = 2 uA max
- High Peak pulse current
- Solid-state silicon technology
- Meets MSL 1 Requirements
- ROHS compliant
- ANALOG FUTURE technology



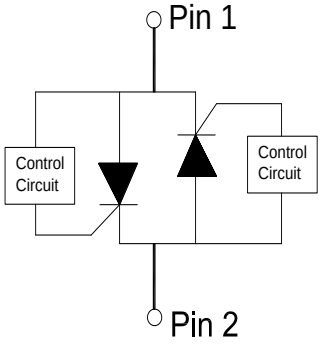
SMA/SMB

Main applications

- Power line Communication interface
- Telecommunications infrastructure
- PBX's and other switches
- Electric energy meter
- Ammeter

Protection solution to meet

- TIA-968-A/TIA-968-B
- ITU K.20/21 Enhanced Level*/Basic Level
- GR 1089 Inter-building*/Intra-building
- IEC 61000-4-5
- IEC61000-4-2
- YD/T 1082
- YD/T 993
- YD/T 950



Maximum ratings (Tamb=25℃ Unless Otherwise Specified)			
Parameter	**Symbol**	**Value**	**Unit**
Non-repetitive peak on-state current: SSCT25V32DA 10/1000 us (Telcordia(Bellcore)Gr-1089-CORE.Issue 2.February 1999,Section4) 5/320 us (ITU-T K.20, K.21& K.45, K.44 open-circuit voltage wave shape 10/700us) 8/20 us (Telcordia(Bellcore)Gr-1089-CORE.Issue 2.February 1999,Section4)	I_{PPSM}	 80 80 100	A
Non-repetitive peak on-state current: SSCT25V32DB 10/1000 us (Telcordia(Bellcore)Gr-1089-CORE.Issue 2.February 1999,Section4) 5/320 us (ITU-T K.20, K.21& K.45, K.44 open-circuit voltage wave shape 10/700us) 8/20 us (Telcordia(Bellcore)Gr-1089-CORE.Issue 2.February 1999,Section4)	I_{PPSM}	 100 125 400	A
Lead Soldering Temperature	T_L	260 (10 sec.)	℃
Operating Temperature Range	T_J	-40 ~ 85	℃
Storage Temperature Range	T_{STG}	-55 ~ 150	℃
Lead Solder Temperature − Maximum (10 Second Duration)	T_L	260	℃
Junction To ambient	$R_{\theta JA}$	100	℃/W

Maximum ratings are those values beyond which device damage can occur. Maximum ratings applied to the device are individual stress limit values (not normal operating conditions) and are not valid simultaneously. If these limits are exceeded, device functional operation is not implied,damage may occur and reliability may be affected.

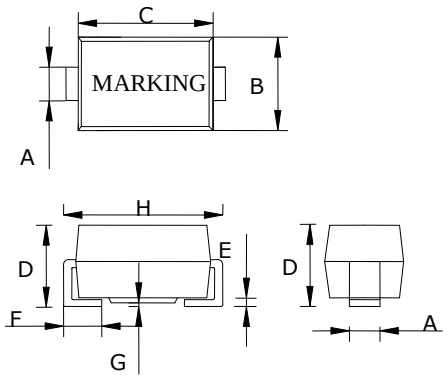
Electrical characteristics (Tamb=25℃ Unless Otherwise Specified)					
Parameter	**Symbol**	**Value**			**Unit**
		Min.	**Typ.**	**Max.**	
Repetitive peak off-state voltage, SSCT25V32DA SSCT25V32DB	V_{DRM}			 ± 25 ± 25	V
Reverse Leakage Current, V_R=6.5V SSCT25V32DA SSCT25V32DB	I_R			 ± 2 ± 2	uA
Reverse Breakdown Voltage, I_R=1mA SSCT25V32DA SSCT25V32DB	V_{DC}		 ± 28 ± 28		V
Breakdown Voltage, SSCT25V32DA SSCT25V32DB	V_{AC}		 ± 20 ± 20		V
Impulse breakover voltage, dv/dt ≤ ±100 V/μs, Linear voltage ramp, SSCT25V32DA SSCT25V32DB	V_{BO}			 ± 40 ± 40	V
On-state voltage, T = ±2.2 A, t w = 100 μs SSCT25V32DA SSCT25V32DB	V_C			 ± 40 ± 40	V
Off-state capacitance, f =1 MHz, Vd =0.3V rms, V_{DC} =0V SSCT25V32DA SSCT25V32DB	C_{off}			pF 75 75	

Package Information

SMA

Mechanical Data

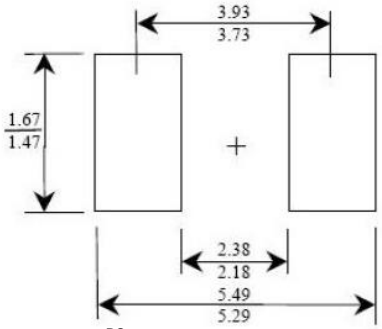
- Case: SMA
- Case Material: Molded Plastic. UL Flammability



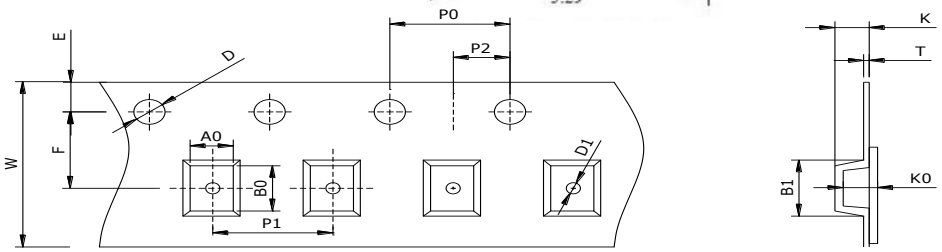
DIM	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	1.35	1.50	1.80	0.053	0.059	0.071
B	2.50	2.67	2.90	0.098	0.105	0.114
C	3.90	4.40	5.10	0.154	0.173	0.201
D	1.90	2.25	2.45	0.075	0.089	0.096
E	0.05	0.200	0.203	0.002	0.007	0.008
F	0.76	1.14	1.52	0.030	0.045	0.060
G	-	-	0.203	-	-	0.008
H	4.80	5.0	5.30	0.189	0.197	0.209

SMA

Recommended Pad outline



SMA Reel Dim



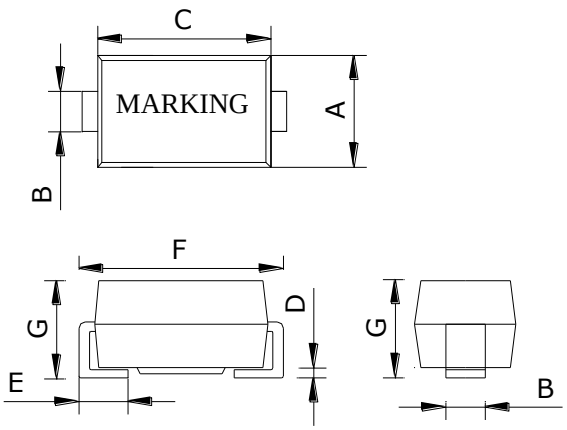
Package	Chip Size (mm)	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SMA	5.30×2.90×2.45	5.40×3.00×2.55	12mm	330mm(13inch)	5000	4mm	4mm
D	D1	E	F	K	T	W	
1.5mm	1.0mm	1.75mm	3.5mm	2.50mm	0.5mm	12mm	

Package Information

SMB

Mechanical Data

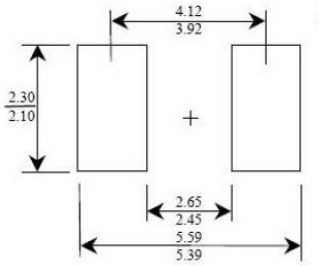
- Case: SMB
- Case Material: Molded Plastic. UL Flammability



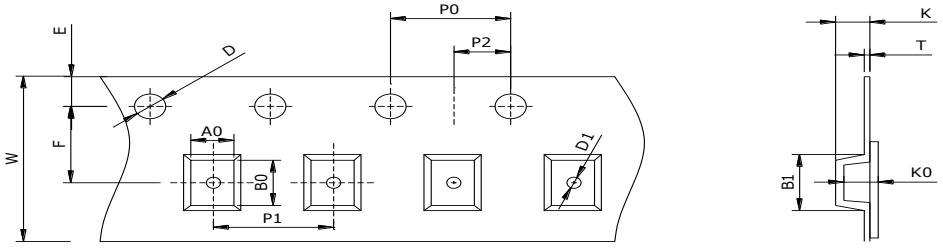
DIM	Millimeters			Inches		
	Min	Nom	Max	Min	Nom	Max
A	3.30	3.60	3.94	0.130	0.142	0.155
B	1.80	2.00	2.21	0.071	0.079	0.087
C	4.05	4.45	5.30	0.159	0.175	0.209
D	0.051	0.20	0.203	0.002	0.007	0.008
E	0.76	1.14	1.52	0.030	0.045	0.060
F	5.08	5.25	5.59	0.200	0.207	0.220
G	2.05	2.30	2.45	0.081	0.091	0.096

SMB

Recommended Pad outline



SMB Reel Dim



Package	Chip Size (mm)	Pocket Size B0×A0×K0(mm)	Tape Width	Reel Diameter	Quantity Per Reel	P0	P1
SMB	5.50×3.80×2.40	5.70×4.00×2.70	12mm	330mm(13inch)	2500	4mm	8mm
D	D1	E	F	K	T	W	
1.5mm	1.0mm	1.75mm	5.5mm	2.45mm	0.5mm	12mm	

Ordering Information

Device	Qty per Reel	Reel Size
SSCT25V32DA	5000	13 Inch
SSCT25V32DB	2500	13 Inch

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