

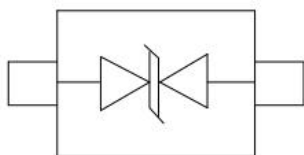
Features

- 150W Peak Pulse Power Per Line(8/20us)
- 12V Working Peak Reverse Voltage
- Peak Pulse Current (8/20 μ s):8A
- ESD per IEC 61000-4-2(Contact):30KV
- ESD per IEC 61000-4-2(Air):30KV
- Clamping Voltage @IPP=1A:15V
- Junction Capacitance:9PF
- Package:SOD-523(0603)
- Polarity: Bidirectional

Mechanical Characteristics

- Mechanical Characteristics
- Lead Finish: NiPdAu
- Case Material: “ Green ” Molding Compound.
- UL Flammability Classification Rating 94V-0
- Moisture Sensitivity: Level 3 per J-STD-020
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Schematic And Configuration



Ordering Information

Part Number	Packaging	Reel Size
TEVC9R0V12B1X	Tape & Reel	7inch

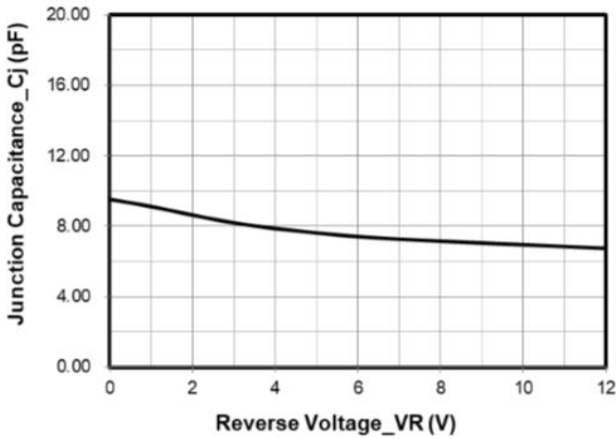
Absolute Maximum Ratings (Ta=25℃, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Operating Temperature Range	Tj	-55~+125	
Storage Temperature Range	Tstg	-55~+150	

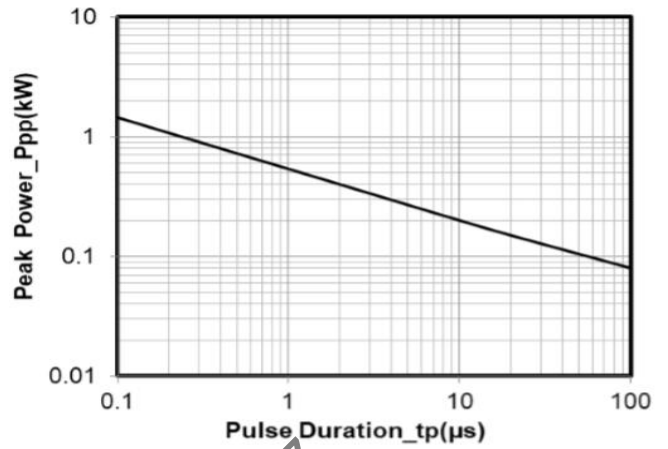
Electrical Characteristics (Ta=25℃)

Parameter	Symbol	Min	Type	Max	Unit	Test Condition
Reverse Working Voltage	Vrwm			12	V	
Breakdown Voltage	Vbr	13.3			V	It=1mA
Reverse Leakage Current	Ir			0.2	uA	VRWM=5V
Clamping Voltage	Vc			19	V	Ipp=8A(8×20us pulse)
Juntion Capacitance	Cj		9		pF	Vr=0V, f=1MHz

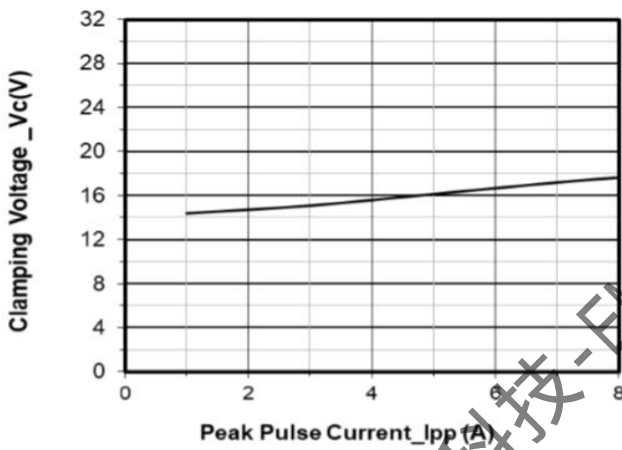
Typical Performance Characteristics (Ta=25 , unless otherwise noted)



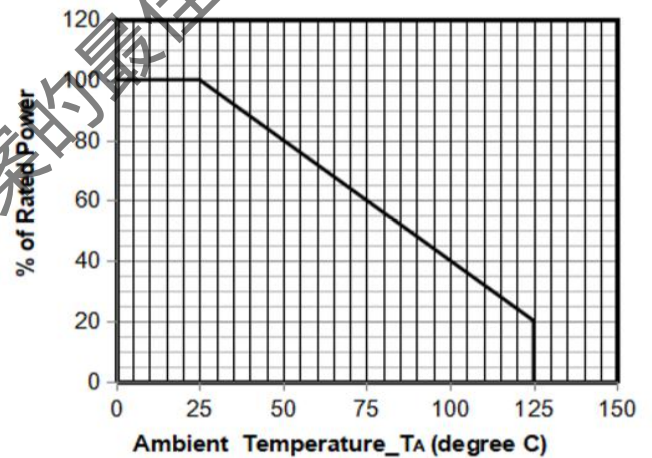
Junction Capacitance vs. Reverse Voltage



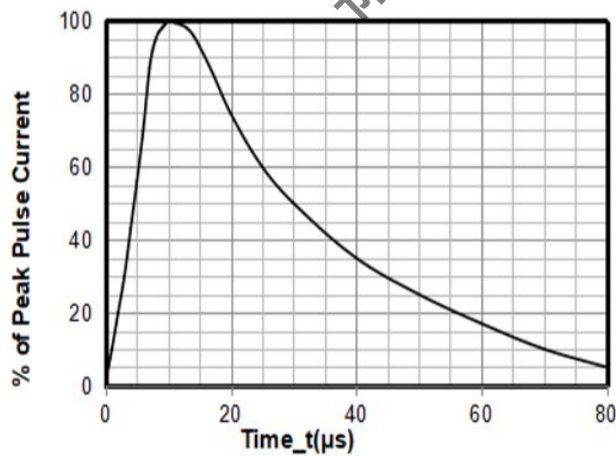
Peak Pulse Power vs. Pulse Time



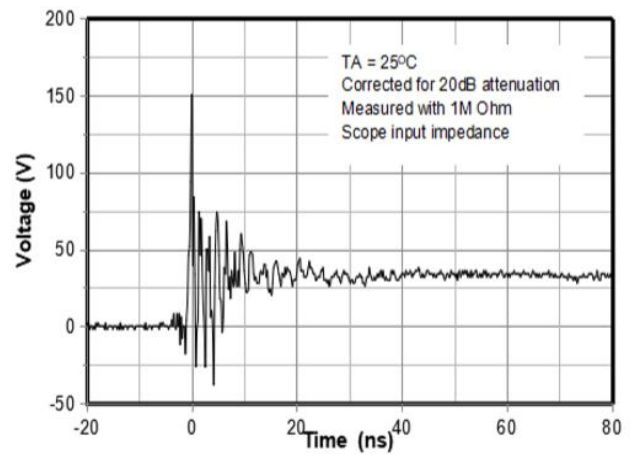
Clamping Voltage vs. Peak Pulse Current



Power Derating Curve



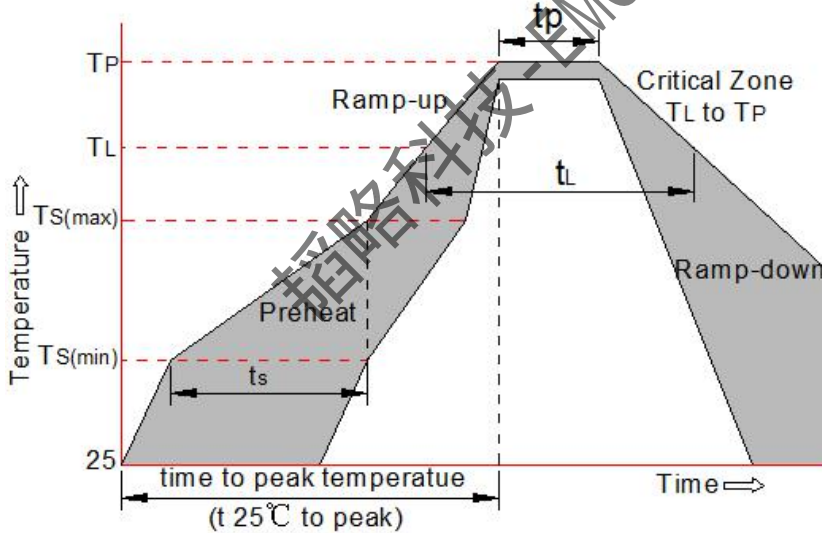
8 X 20μs Pulse Waveform



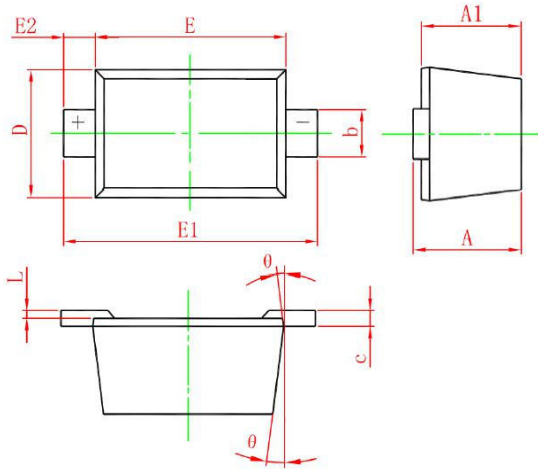
ESD Clamping Voltage
8 kV Contact per IEC61000-4-2

Soldering Parameters

Reflow Condition		Pb-Free Assembly (see as bellow)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (ts)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_P)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_P)		8 min. Max
Do not exceed		+260°C

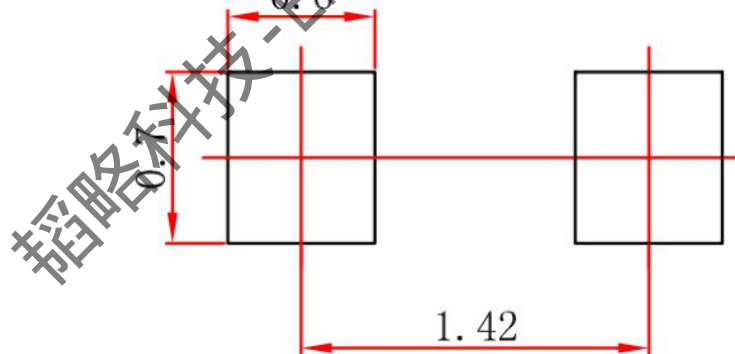


Package Mechanical Data



SYM	DIMENSIONS					
	MILLIMETERS			INCHES		
	MIN	NOM	MAX	MIN	NOM	MAX
A	0.51	-	0.77	0.020	-	0.031
A1	0.50	-	0.70	0.020	-	0.028
b	0.25	-	0.35	0.010	-	0.014
c	0.08	-	0.15	0.003	-	0.006
D	0.75	-	0.85	0.030	-	0.033
E	1.10	-	1.30	0.043	-	0.051
E1	1.50	-	1.70	0.059	-	0.067
E2	0.20REF			0.008REF		
L	0.01	-	0.07	0.001	-	0.003
Φ	7° REF			7° REF		

Suggested Land Pattern



Contact Information

SHENZHEN TOP-FLIGHT TECHNOLOGY CO.,LTD

4th Floor, C Building, Quansen Industrial Park , Bulong Road, Longhua New District, Shenzhen

Tel: 86-755-82908191 Fax: 86-755-82908701 Email: kang@topleve.com

Website: <http://www.topleve.com>