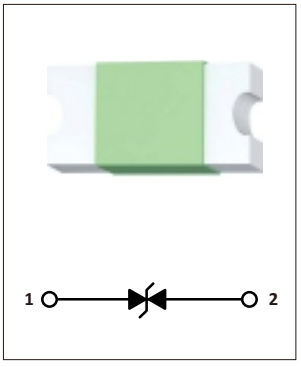
FEATURES

> ESD protection for high speed data lines to IEC61000-4-2
> ESD contact discharge typical 8KV, max 15KV
> ESD air discharge typical 15KV, max 25KV
> Surface mount
> Extremely low capacitance
> Very low leakage current
> Fast response time
> Bi-directional ESD protection
> Lead free solder termination
> The best ESD protection for high frequency,low voltage applications



APPLICATIONS

> USB3.0,Firewire,DVI,HDMI,S-ATA
> Thunderbolt,Display Port
> Mobile HDMI Link,MDDI,MIPI,SWP/NFC

MECHANICAL DATA

> **Case:** 0603 (plastic package).Lead free; RoHS compliant
> **Molding Compound Flammability Rating:**UL 94 V-0
> **Terminals:** High temperature soldering guaranteed:260°C/10 sec.at terminals

ABSOLUTE MAXIMUM RATINGS Ratings at 25°C ambient temperature unless otherwise specified.

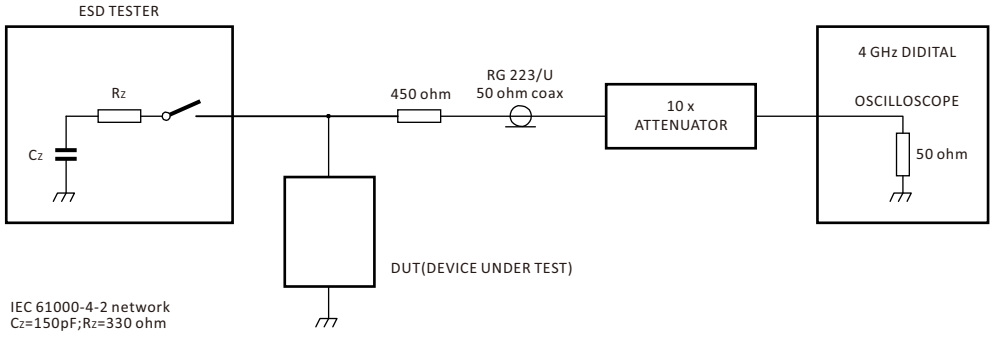
PARAMETER	SYMBOL	VALUE	UNITS
Maximum Contact discharge voltage Per IEC61000-4-2	-	15	KV
Maximum Air discharge voltage Per IEC61000-4-2	-	25	KV
Maximum Operating temperature	T_{OPER}	-40~+90	°C
Maximum Storage temperature	T_{STG}	-55~+125	°C
Maximum lead temperature for soldering during 10s	T_L	260	°C

ELECTRICAL CHARACTERISTICS

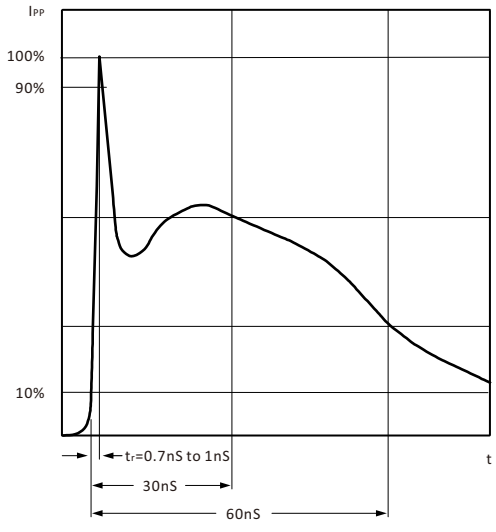
PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNITS
Rated Voltage	V_R	-			30	V
Trigger voltage	V_T	IEC61000-4-2 8KV contact discharge		350		V
Clamping voltage	V_C	IEC61000-4-2 8KV contact discharge		35		V
Leakage current	I_L	DC 12V shall be applied on component			0.10	uA
Capacitance	C_P	VR=0V,f=1MHz		0.05		pF

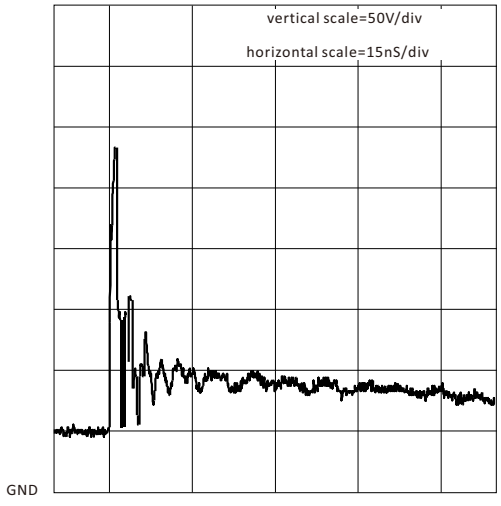
Note:
1 Trigger and clamping voltage are measured per IEC 61000-4-2, 8KV contact discharge method.
2 After reliability tests such as high temp storage, temp cycles, continuous ESD strike etc, the maximum leakage current is less than 10uA.

ESD CLAMPING TEST

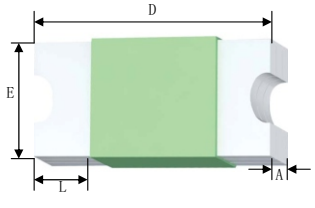


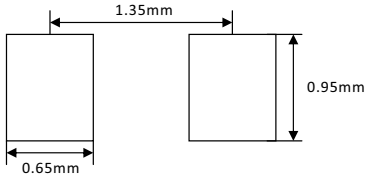
ESD CLAMPING TEST WAVEFORMS





PRODUCT AND PAD DIMENSIONS

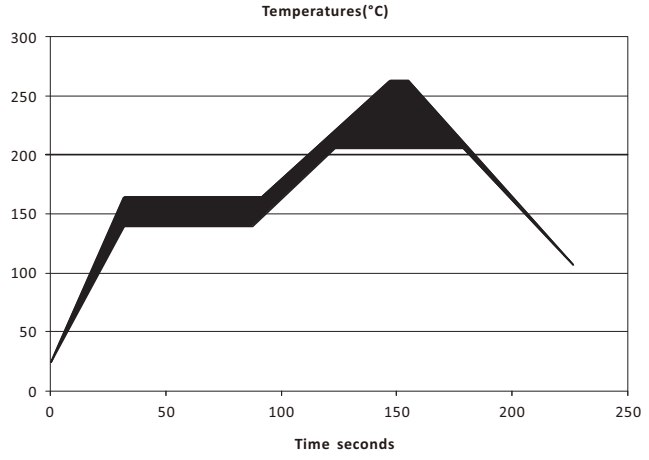




Solder thickness 0.15~0.2mm

DIMENSION	UNITS(mm)		
	MIN.	TYP.	MAX.
D	1.45	1.60	1.75
E	0.70	0.83	0.95
L	0.20	0.35	0.50
A	0.27	0.38	0.47

SOLDER REFLOW RECOMMENDATIONS



ORDERING INFORMATION

Order Code	Package	Packaging Option	Base Quantity	Packaging Specification
SPE0603B30	0603	Tape and Reel	5000pcs/Reel	EIA STD RS-481

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