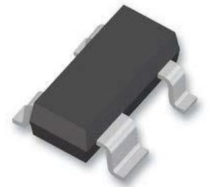


Low Capacitance TVS Diode Array

APPLICATION

- ◆ WAN/LAN Equipment
- ◆ ISDN S/T interface
- ◆ T1/E1 secondary IC side protection
- ◆ Video Line Protection
- ◆ Ethernet 10BaseT
- ◆ USB Power,Data Line Protection
- ◆ I2C Bus Protection



SOT-143

IEC COMPATIBILITY

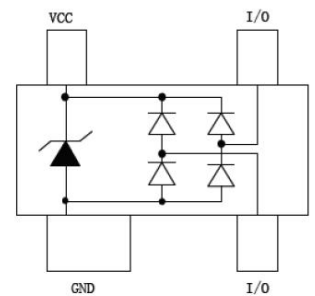
- ◆ IEC61000-4-2 (ESD) ±15kV (air), ±8kV (contact)
- ◆ IEC61000-4-5 (Lightning) 5A (8/20µs)



Contact: ±8kV Air: ±15kV

FEATURES

- ◆ Low reverse current
- ◆ Low junction capacitance: 0.8pF
- ◆ Small package: SO-143



PIN CONFIGURATION

Electrical Characteristics

MAXIMUM RATINGS @ 25°C UNLESS OTHERWISE SPECIFIED

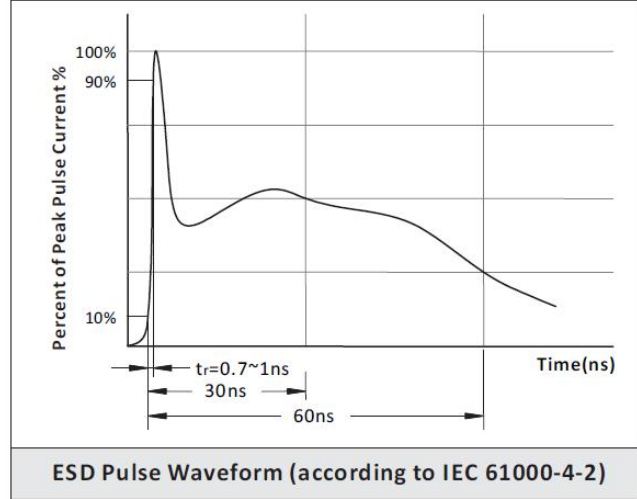
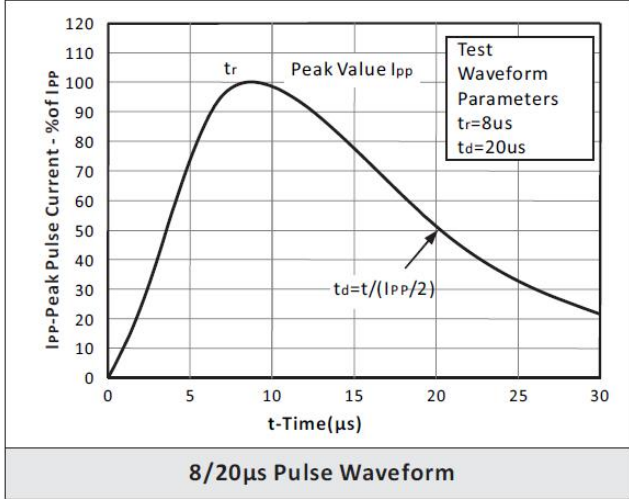
PARAMETER	SYMBOL	VALUE	UNIT
Peak Pulse Power (tp=8/20µs waveform)	P _{PP}	125	Watts
Operating Temperature Range	T _J	-55~125	°C
Storage Temperature Range	T _{STG}	-55~150	°C

Electrical Characteristics

Part Number	VRWM	VBR	IR (max)	Co Max value	Vc @1A Max	Vc @A	Ppp 8/20us	Package	
	V	V	(uA)	pF	V	V _{max}	W		
HAH0503S1	5	6	1.0	1	15	25	5	125	SOT-143

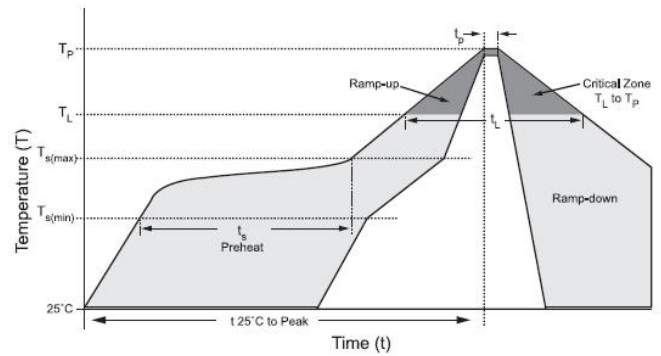
Low Capacitance TVS Diode Array

CHARACTERISTIC CURVES



REFLOW PROFILE

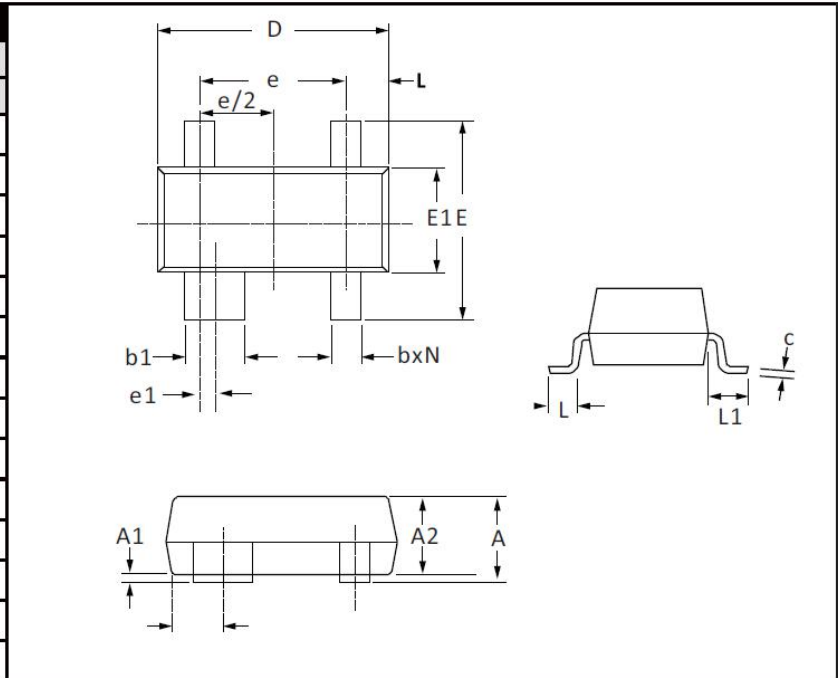
Reflow Condition		Lead-free assembly
Pre Heat	Temperature Min ($T_s(\min)$)	150°C
	Temperature Max ($T_s(\max)$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
Ts(max)to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)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



Low Capacitance TVS Diode Array

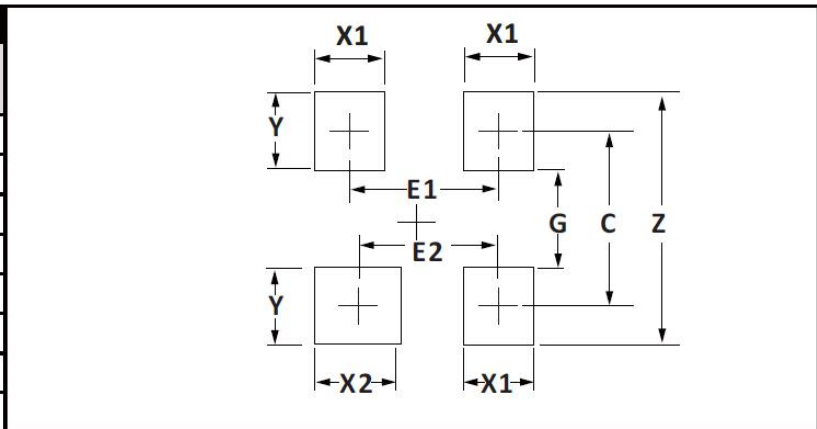
SOT-143 PACKAGE INFORMATION

OUTLINE DIMENSIONS				
DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	0.80	1.22	0.031	0.048
A1	0.013	0.15	0.000	0.008
A2	0.75	1.07	0.029	0.042
b	0.30	0.51	0.011	0.020
b1	0.76	0.94	0.029	0.037
c	0.06	0.20	0.002	0.008
D	2.80	3.04	0.110	0.120
E	2.10	2.64	0.082	0.104
E1	1.20	1.40	0.047	0.055
e	1.92BSC		0.075	
e1	0.20BSC		0.008	
L	0.40	0.60	0.015	0.024
L1	(0.54)		(0.021)	
N	4		4	



RECOMMENDED PAD LAYOUT DIMENSION

PAD LAYOUT DIMENSIONS		
DIM	MILLIMETERS	INCHES
C	(2.2)	(0.087)
E1	1.92	0.076
E2	1.72	0.068
G	0.80	0.031
X1	1.00	0.039
X2	1.20	0.047
Y	1.40	0.055
Z	3.60	0.141



Ordering Information

Part Number	Qty per Reel	Reel Size	Package
HAH0503S1	3000pcs	7inch	SOT-143