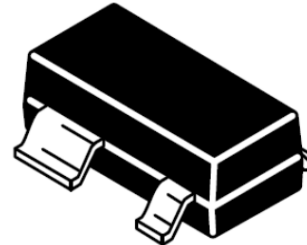


Features

- 100 ~ 450 Watts Peak Pulse Power per Line (tp=8/20µs)
- Protects One Vcc & Two I/O Lines
- Low Clamping Voltage
- Working Voltages : 12V
- Low Leakage Current
- IEC61000-4-2 (ESD) ±15kV (air), ±10kV (contact)
- IEC61000-4-4 (EFT) 40A (5/50ns)
- IEC61000-4-5 (Lightning) 4A ~ 25A (8/20µs)

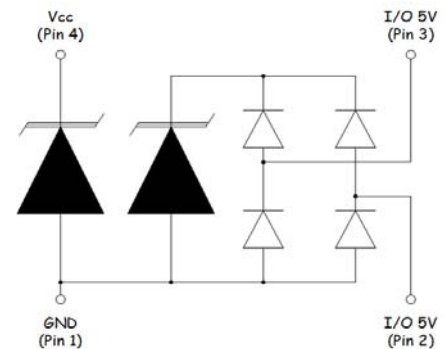
Dimensions SOT-143



Applications

- USB Power & Data Line Protection
- Ethernet 10BaseT
- I²C Bus Protection
- Video Line Protection
- T1/E1 secondary IC Side Protection
- Microcontroller Input Protection
- ISDN S/T Interface
- WAN/LAN Equipment

Pin Configuration



Mechanical Characteristics

- SOT-143 Package
- Molding Compound Flammability Rating : UL 94V-O
- Weight 10 Milligrams (Approximate)
- Quantity Per Reel : 3,000pcs
- Reel Size : 7 inch
- Lead Finish : Lead Free

Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Parameter	Symbol	Value	Unit
Peak Pulse Power (8/20µs) Pin 4 to 1	Ppp	450	W
Peak Pulse Power (8/20µs) Pin 2 or 3 to Pin 1	Ppp	100	W
ESD per IEC 61000-4-2 (Air)	VESD	± 15	Kv
ESD per IEC 61000-4-2 (Contact)		± 10	
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	TSTJ	-55 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

Part Number	Device Marking		V _{RWM} (V)	V _{BR} (V)	I _T (mA)	V _C @1A	V _C		I _R μA (Max)	C (Pf) (Typ.)
							(Max)	(@A)		
LC1234DT4	D3A	Pin 1 to 4	12	13.3	1	19	35	13	1	110
		Pin 2or Pin 2or 3to	5	6	1	12	25	4	1	0.45

Characteristic Curves

Figure 1. 8 x 20 μs Waveform

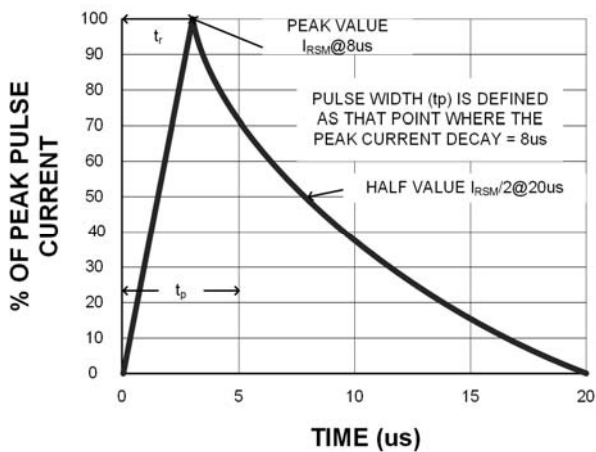


Figure 2. Power Derating Curve

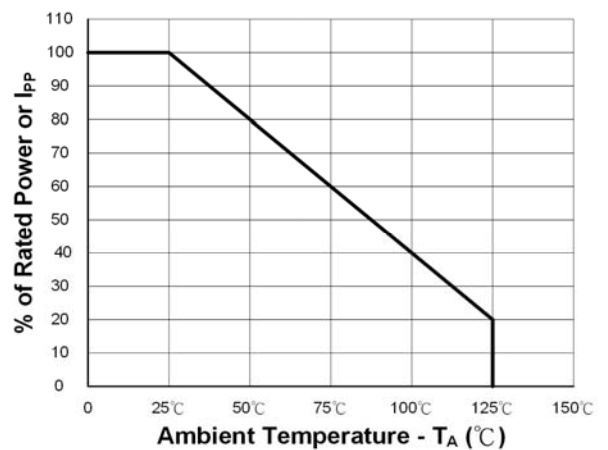


Figure 3. Clamping Voltage vs. Peak Pulse Current (tp=8/20us)

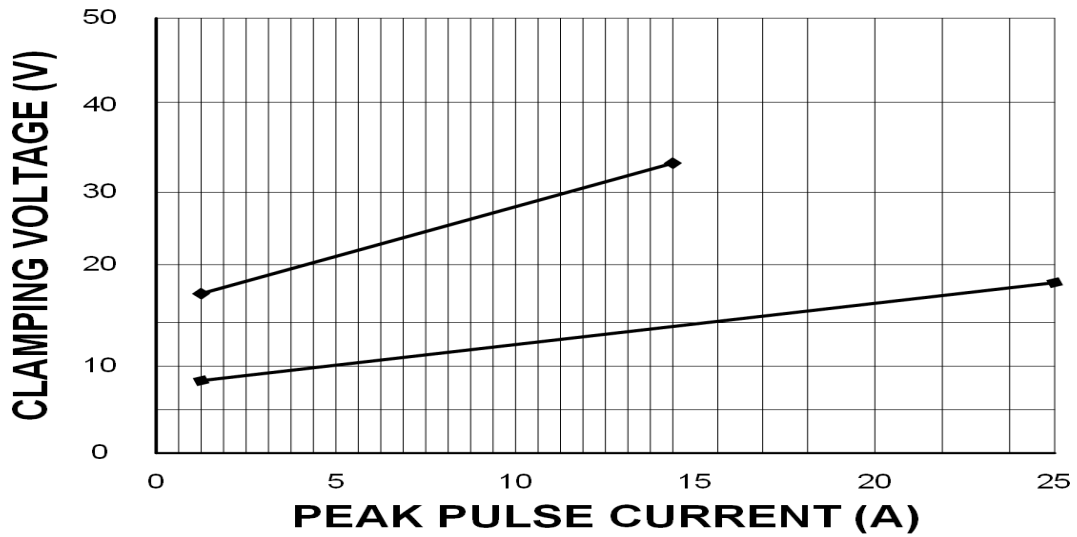
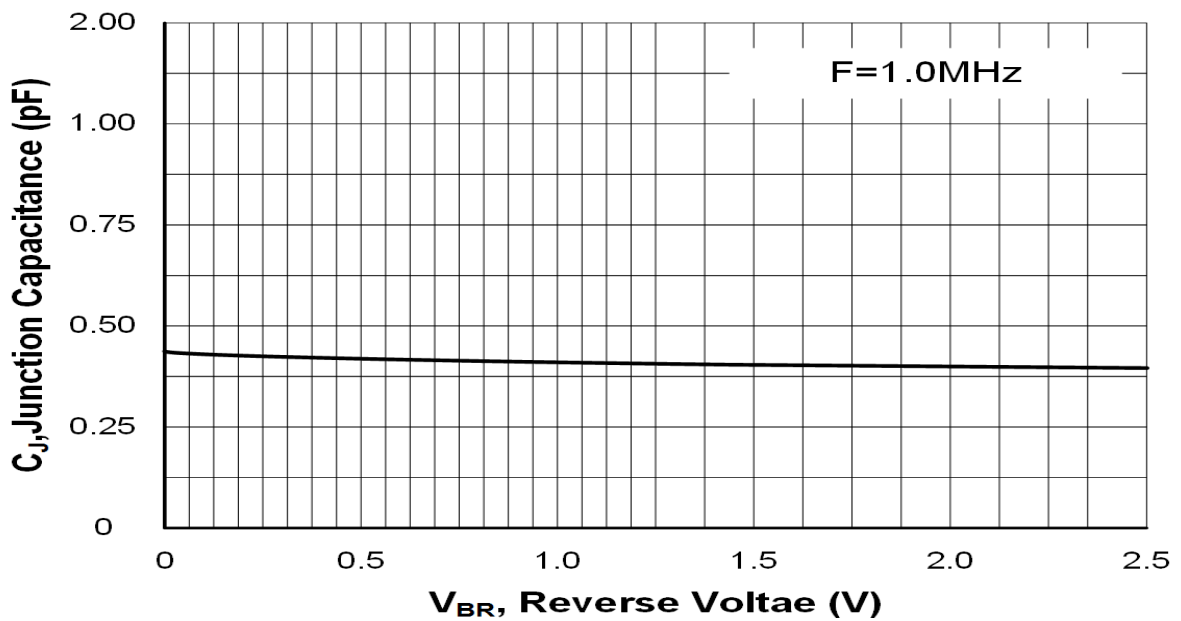
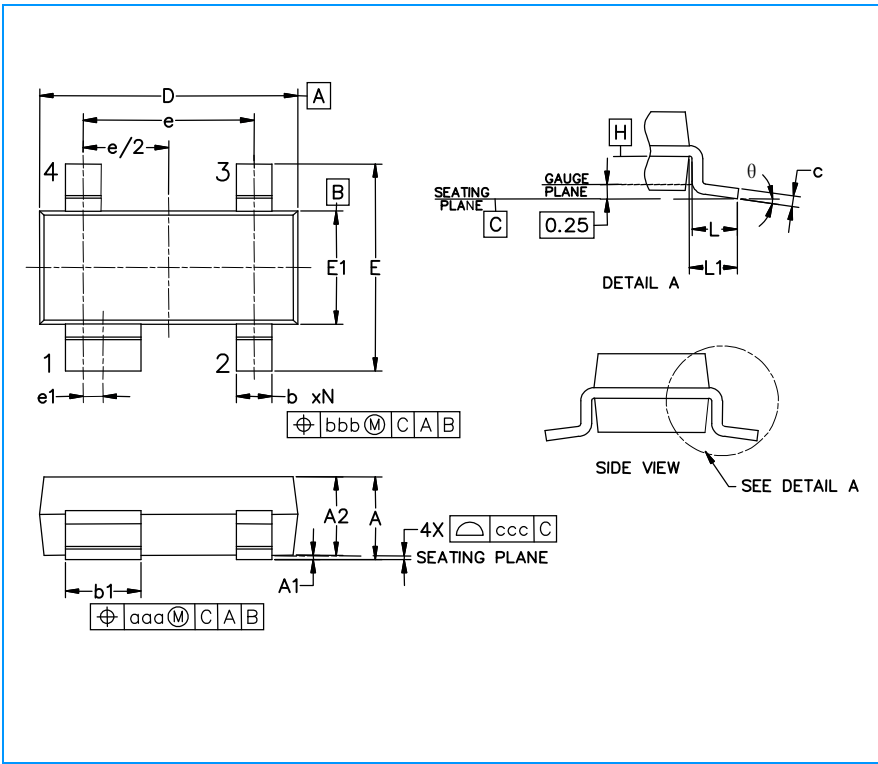


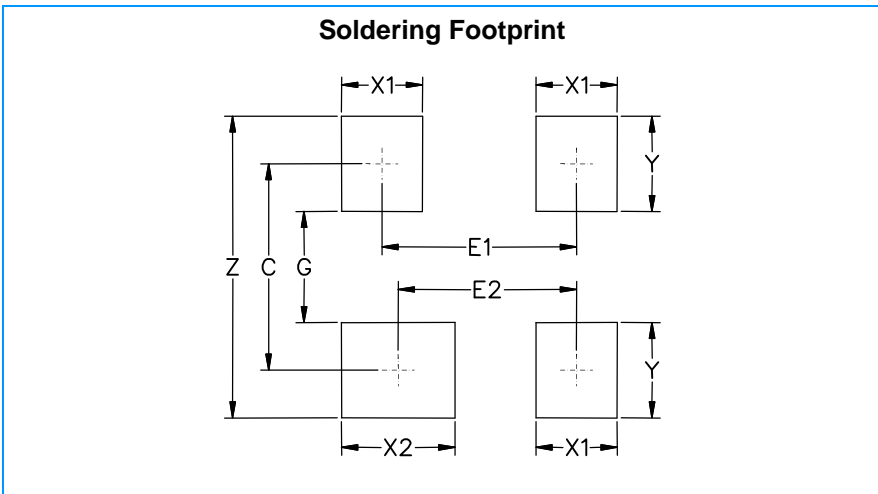
Figure 4. Typic Capacitance vs. Reverse Voltage



SOT-143 Package Outline & Dimensions



Symbol	Inches			Millimeters		
	Min.	Nom.	Max.	Min.	Nom.	Max.
A	0.031	-	0.048	0.80	-	1.22
A1	0.000	-	0.008	0.013	-	0.15
A2	0.020	0.035	0.042	0.75	0.90	1.07
b	0.011	-	0.020	0.30	-	0.51
b1	0.029	-	0.037	0.76	-	0.94
c	0.003	-	0.008	0.08	-	0.20
D	0.110	0.114	0.120	2.80	2.90	3.04
E	0.082	0.093	0.104	2.10	2.37	2.64
E1	0.047	0.051	0.055	1.20	1.30	1.40
e	0.075			1.92 BSC		
e1	0.008			0.20 BSC		
L	0.015	0.020	0.024	0.40	0.50	0.60
L1	(0.021)			(0.54)		
N	4			4		
θ	0°	-	8°	0°	-	8°
aaa	0.006			0.15		
bbb	0.008			0.20		
ccc	0.004			0.10		



Symbol	Inches	Millimeters
C	(0.087)	(2.20)
E1	0.076	1.92
E2	0.068	1.72
G	0.031	0.80
X1	0.039	1.00
X2	0.047	1.20
Y	0.055	1.40
Z	0.141	3.60