

Features

- ◆ 250W peak pulse power(8/20μs)
- ◆ Protects two bi-directional lines
- ◆ Ultra low leakage: nA level
- ◆ Operating voltage: 24V
- ◆ Low clamping voltage
- ◆ Complies with following standards:
 - IEC 61000-4-2 (ESD) immunity test
 - Air discharge: ±30kV
 - Contact discharge: ±30kV
 - IEC61000-4-4 (EFT) 40A (5/50ns)
- ◆ – IEC61000-4-5 (Lightning)5A (8/20 μs)
- ◆ RoHS Compliant

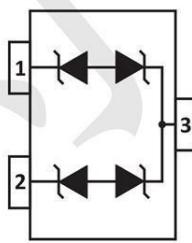
Mechanical Characteristics

- ◆ SOT-23 package
- ◆ Molding compound flammability rating:
- ◆ UL 94V-0
- ◆ Packaging: Tape and Reel per EIA 481
- ◆ Shipping Qty :3000pcs/7Inch Tape & Reel

Applications

- ◆ CAN Bus Protection
- ◆ Automotive Applications

Dimensions and Pin Configuration



**marking: 24C Or C2xxyy
xxyy =date code**

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

Parameter	Symbol	Value	Unit
Peak Pulse Power(8/20μs)	Ppk	250	W
ESD per IEC 61000-4-2 (Air) ESD per IEC 61000-4-2 (Contact)	VESD	±30 ±30	kV
Operating Temperature Range	TJ	-55 to +125	°C
Storage Temperature Range	Tstg	-55 to +150	°C

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

Parameter	Symbol	Min	Typ	Max	Unit	Test Condition
Reverse Working Voltage	VRWM			24	V	
Breakdown Voltage	VBR	26.5		32	V	IT = 1mA
Reverse Leakage Current	IR			0.08	uA	VRWM = 24V
Clamping Voltage	VC		33		V	IPP = 1A (8 x 20μs pulse)
Clamping Voltage	VC			50	V	IPP = 5A (8 x 20μs pulse)
Peak Pulse Current	IPP			5.5	A	t _p = 8/20μs
Junction Capacitance	CJ		17		pF	VR = 0V, f = 1MHz, Pin 1 to Pin 2

Typical Performance Characteristics ($T_A=25^\circ\text{C}$ unless otherwise Specified)

Fig1. 8/20 μs Pulse Waveform

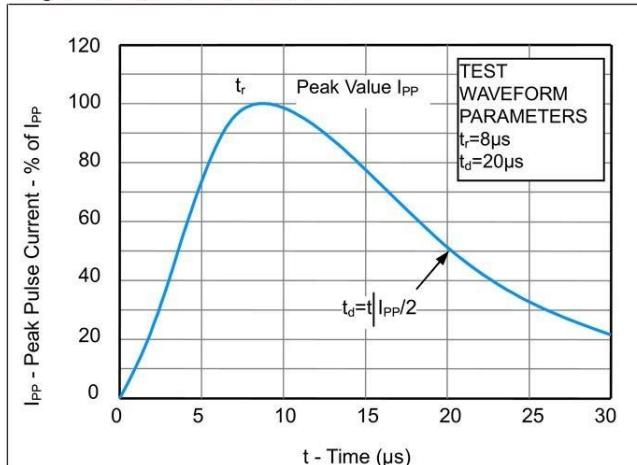


Fig2. ESD Pulse Waveform (according to IEC 61000-4-2)

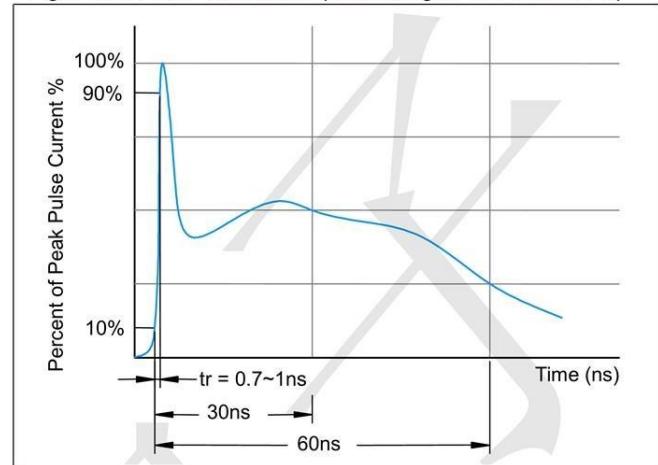
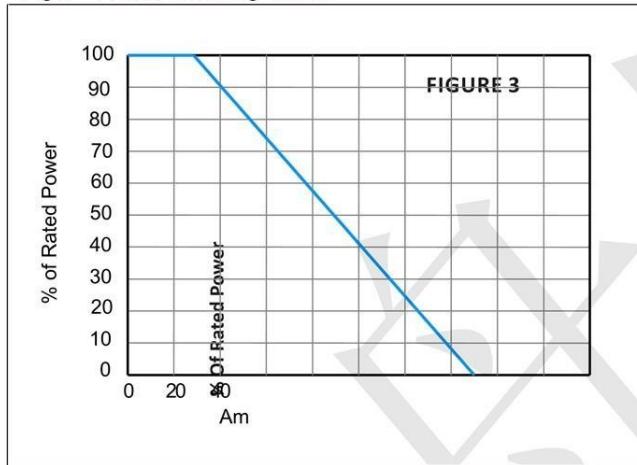


Fig3. Power Derating Curve



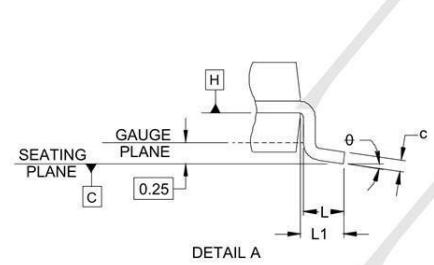
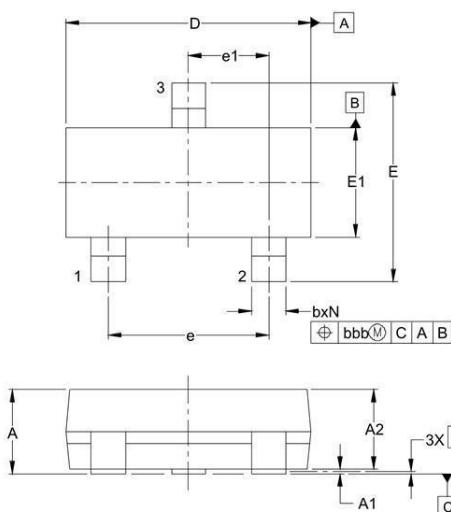


TECH PUBLIC
台舟电子

CDSOT23-T24CAN
Can bus Esd Protection Diode

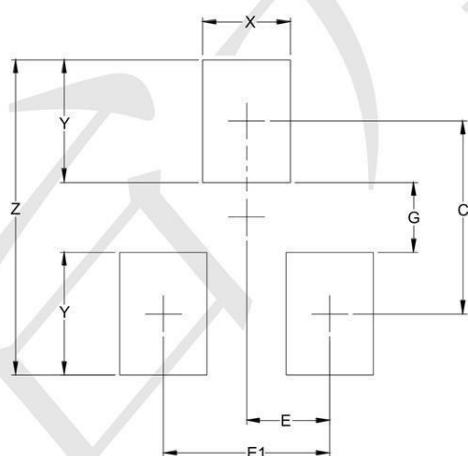
www.sot23.com.tw

Outline Drawing - SOT23



DIMENSIONS						
	INCHES		MILLIMETERS			
DIM	MIN	NOM	MAX	MIN	NOM	MAX
A	.035	-	.044	.89	-	1.12
A1	.000	-	.004	.01	-	0.10
A2	.035	.037	.040	.88	.95	1.02
b	.012	-	.020	.30	-	.51
c	.003	-	.007	.08	-	.18
D	.110	.114	.120	2.80	2.90	3.04
E	.082	.093	.104	2.10	2.37	2.64
E1	.047	.051	.055	1.20	1.30	1.40
e	.075			1.90 BSC		
e1	.037			0.95 BSC		
L	.015	.020	.024	.40	.50	.60
L1	.022			(0.55)		
N	3			3		
θ	0°	-	8°	0°	-	8°
aaa	.004			0.10		
bbb	.008			0.20		

Land Pattern - SOT23



DIMENSIONS		
DIM	INCHES	MILLIMETERS
C	(.087)	(2.20)
E	.037	0.95
E1	.075	1.90
G	.031	0.80
X	.039	1.00
Y	.055	1.40
Z	.141	3.60