4SMX63V3A

DFN Package
Uni-Directional TVS Diode

Peak Pulse Power - 400 W
Reverse Stand Off Voltage - 3.3 V

Description

4SMX63V3A is designed specifically to protect sensitive electronic equipment from voltage transients induced by lightning and other transient voltage events.

Features

- 400W peak pulse power capability at 10/1000μs waveform, repetition rate (duty cycle): 0.01%
- Compatible with industrial standard package SOD-323HE
- Low profile: maximum height of 0.9 mm
- For surface mounted applications to optimize board space
- Typical failure mode is short from over-specified voltage or current
- Whisker test is conducted based on JEDEC JESD201A per its table 4a and 4c
- IEC-61000-4-2 ESD 30kV(Air), 30kV (Contact)

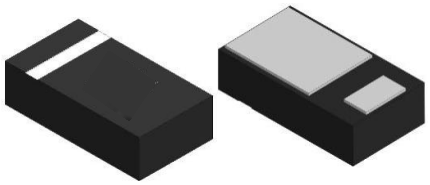
Mechanical Data

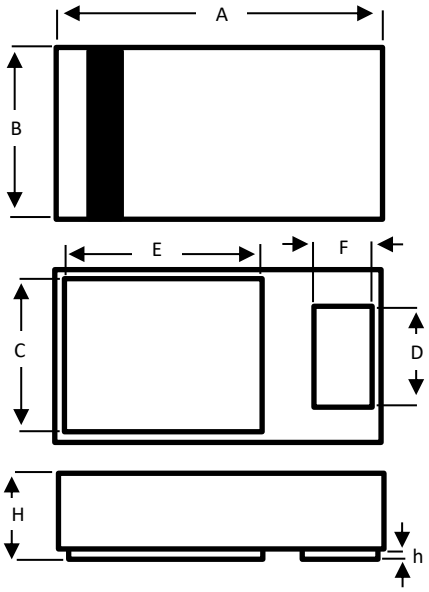
- Case:DFN2614 package
- Case material: “green” molding compound
- UL flammability classification rating 94V-0

Applications

4SMX63V3A devices are ideal for the protection of portable devices/hard drives, notebooks, VCC busses, POS terminal, SSDs, power supplies, monitors, and vulnerable circuit used in other consumer applications.

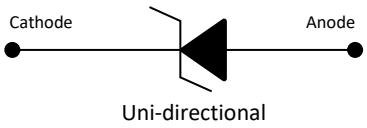
Package Outline Dimensions





DFN2614 Package		
Dim	Min	Max
A	2.55	2.75
B	1.35	1.55
C	1.05	1.35
D	0.55	0.85
E	1.35	1.65
F	0.25	0.55
H	0.70	0.90
h	0.05(typ)	
All Dimensions in mm		

Device Schematic



Uni-directional

Marking Information

Ordering Information

- Package :DFN2614
- Reel Size :7 (inches)
- Quantity Per Reel :4Kpcs

Maximum Ratings (@TA = +25°C, unless otherwise specified.)

Absolute Ratings

Parameter	Symbol	Value	Unit
Peak Pulse Power Dissipation at TA=25°C by 10/1000us Waveform	P_{PP}	400	W
Peak Pulse Current (10/1000us)	I_{PP}	67	A
Operating Temperature Range	T_j	-55 to +150	° C
Storage Temperature Range	T_{STG}	-55 to +150	° C
Thermal Resistance Junction- to- Ambient	$R_{\theta JA}$	120	°C/W
Thermal Resistance Junction- to- Lead	$R_{\theta JL}$	50	°C/W

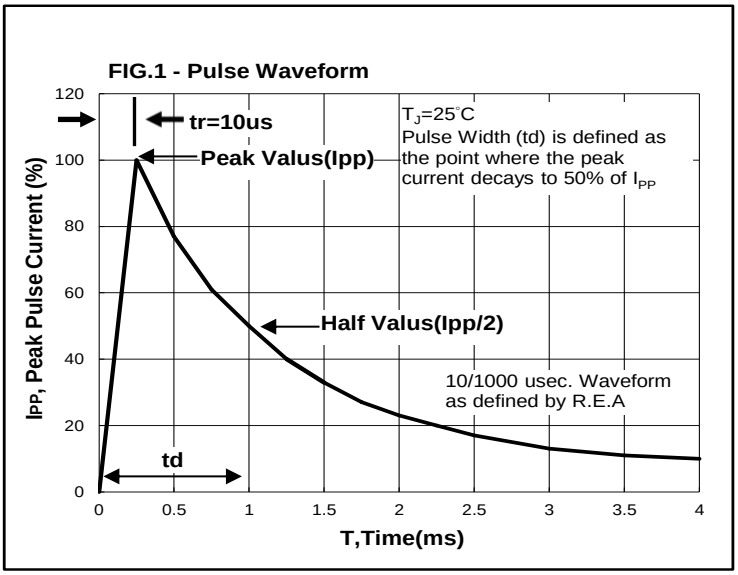
Electrical Characteristics (@T_A = 25°C, unless otherwise specified.)

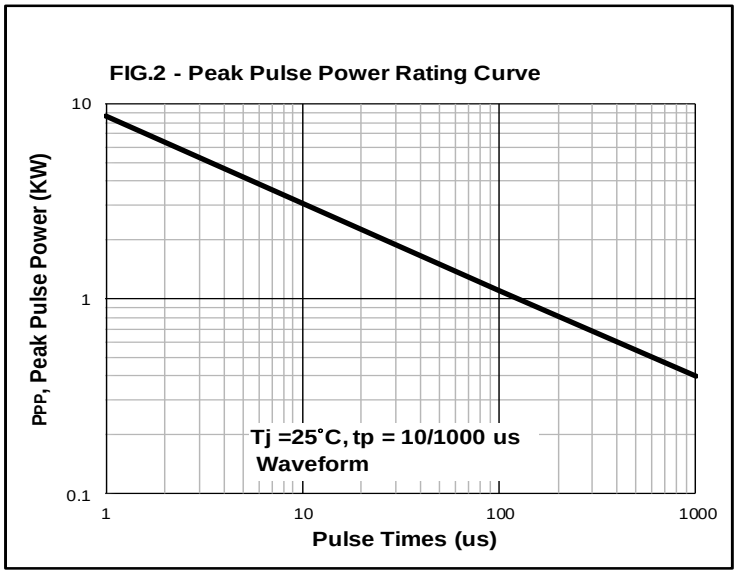
Part Number	Marking Code	Reverse Working Voltage V_{RWM}(V)	Reverse Breakdown Voltage V_B(V)			Reverse Leakage Current (Max) I_R(uA) @V_R	Peak Pulse Current (Max) I_{PP}(A)	Reverse Clamping Voltage (Max) V_C(V) @I_{PP}
			Min.	Max.	@I_T(mA)			
4SMX63V3A	334	3.3	3.4	4.3	10	0.5	67	6.0

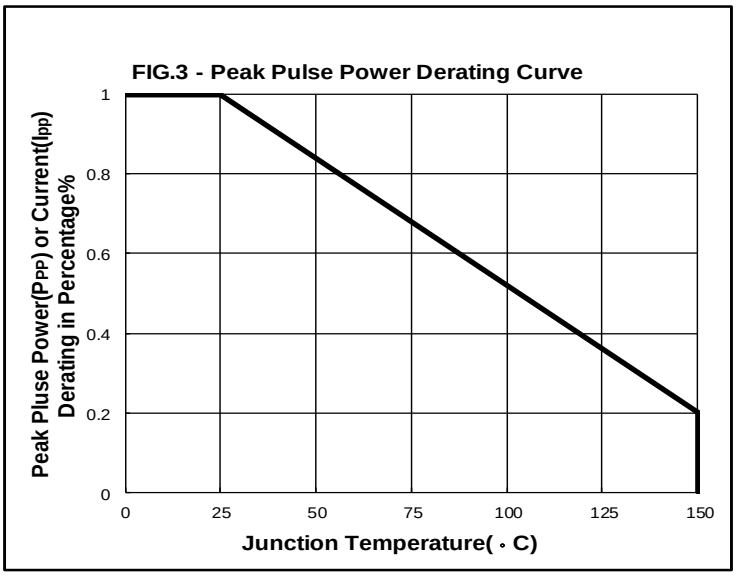
Note:

1. V_{BR} measured after I_T applied for 300µs, I_T = square wave pulse or equivalent.
2. Surge current waveform per 10/1000µs exponential wave and derated per Fig.2.
3. Non-repetitive current pulse(10/1000µs), derated above T_J initial 25 °C per Fig.3.

Rating and Characteristic Curves







The curve above is for reference only.

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