

Thyristor Surge Suppressors - DO-214AA

Description

P4200Sx series are a type of semiconduct component. They are designed to protect baseband equipment from damaging overvoltage transients.

Features

- Low profile package.
- Low on-state voltage.
- Excellent capability of absorbing transient surge.
- Quick response to surge voltage (ns Level).
- Eliminates overvoltage caused by fast rising transients.
- Moisture sensitivity level: Level 1.
- Non degenerative

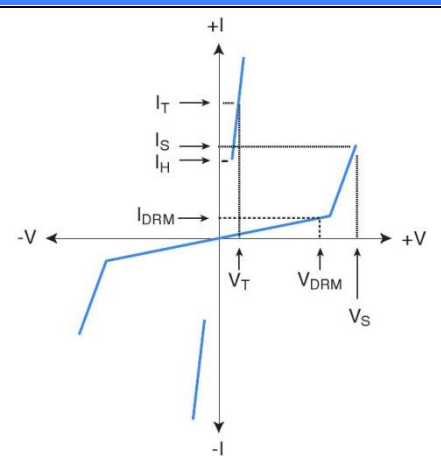


DO-214AA(SMB)

Device Symbol



Typical Applications

Parameter	Definition	
V_{DRM}	Peak Off-state Voltage – maximum voltage that can be applied while maintaining off state	
V_S	Switching Voltage – maximum voltage prior to switching to on state	
V_T	On-state Voltage – maximum voltage measured at rated on-state current	
I_{DRM}	Leakage Current – maximum peak off-state current measured at V_{DRM}	
I_S	Switching Current – maximum current required to switch to on state	
I_T	On-state Current – maximum rated continuous on-state current	
I_H	Holding Current – minimum current required to maintain on state	
C_o	Off-state Capacitance – typical capacitance measured in off state	
I_{PP}	Peak Pulse Current – maximum rated peak impulse current	

Thermal Consideration

Parameter	Symbol	Value	Unit
Operating Temperature	T_J	-60 to +150	°C
Storage Temperature	T_{STG}	-60 to +125	°C
Repetitive peak pulse current	IPP	see next table	A

Summary Electrical Characteristics, $T_a = 25^\circ\text{C}$ (Unless Otherwise Noted)

Part Number	IDRM@VDRM		$V_S^{(1)}$ @ I_S		V_T @ I_T		I_H	$CO^{(2)}$
	μA	V	V	mA	V	A	mA	pF
	max		max	max	max	max	max	Max
P4200SB	1	400	520	800	4	2.2	100	35
P4200SC	1	400	520	800	4	2.2	100	35
P4200SD	1	400	520	800	4	2.2	100	40

Surge Ratings

Series	I_{pp} 2/10 μs Amps	I_{pp} 8/20 μs Amps	I_{pp} 5/320 μs Amps	I_{pp} 10/1000 μs Amps
B	250	250	100	80
C	500	400	150	100
D	800	600	200	200

Rating & Characteristic Curves

Figure 1- Reflow Soldering

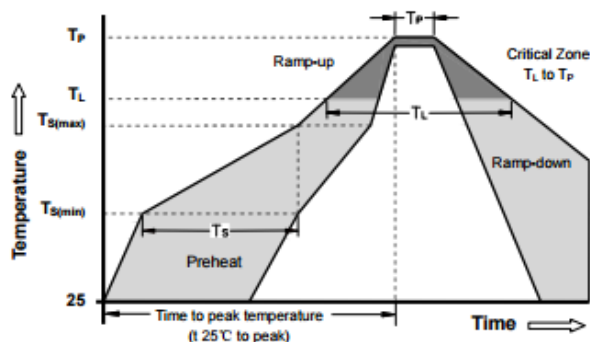


Figure 2- PEAK PULSE CURVE

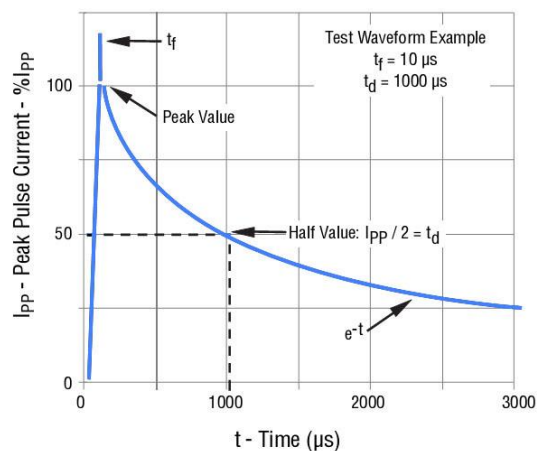


Figure 3-Normalized DC Holding Current versus Case Temperature

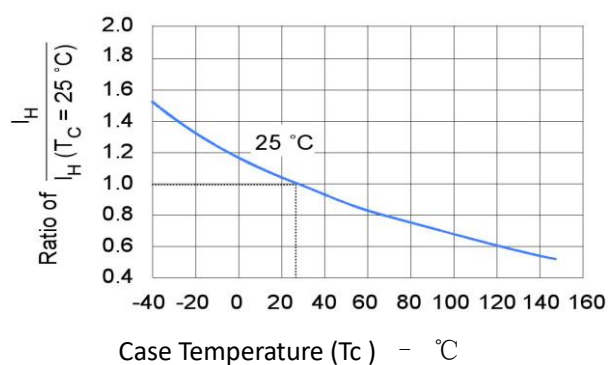
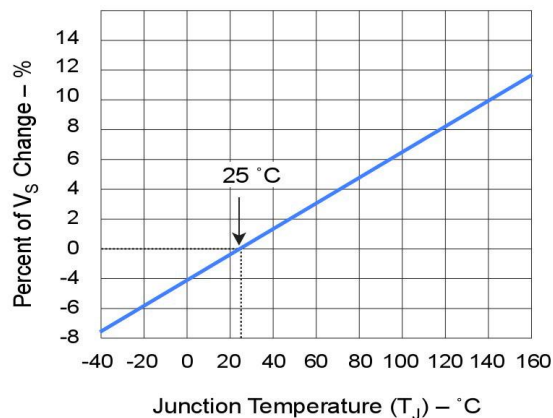
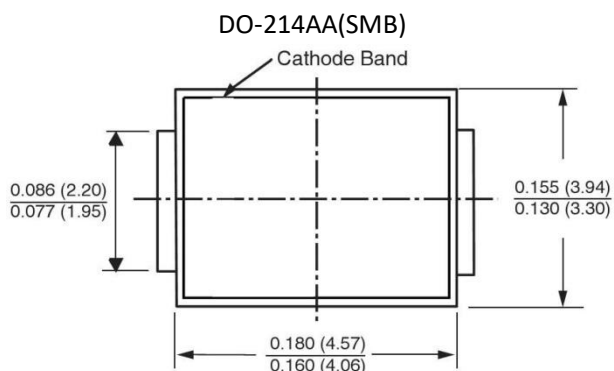


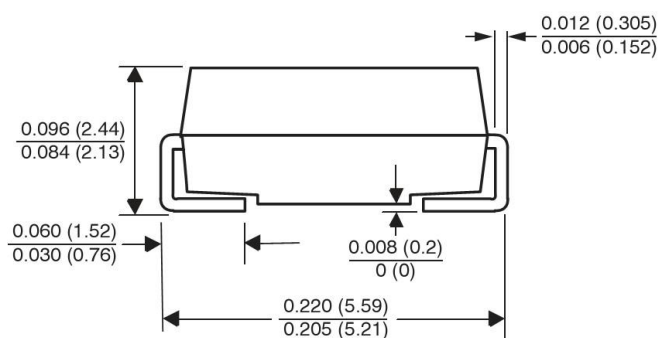
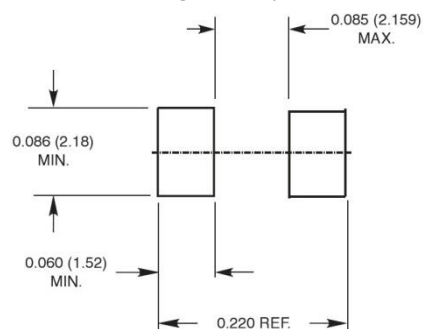
Figure 4-Normalized V_S change versus Junction Temp



PACKAGE OUTLINE DIMENSIONS in inches (millimeters)



Mounting Pad Layout



Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.