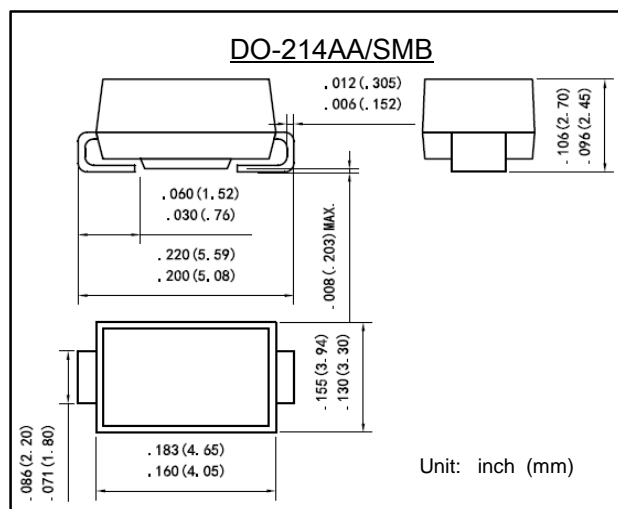


Surface Mounted Over-voltage Protection Thyristor



Features

- Low reverse leakage
- High reliability
- High temperature soldering guaranteed:
260°C/10seconds
- Lead and body according with RoHS standard
- Have low capacitance, making them ideal for high-speed transmission equipment
- Will not fatigue
- Are non-degenerative
- Eliminate voltage overshoot caused by fast-rising transients
- Cannot be damaged by voltage

Mechanical Data

- Case:DO-214AA Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Lead: Pure tin plated, lead free
- Green compound

Electrical Parameters

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
V_{PP}	Peak Pulse Voltage – maximum rated peak impulse voltage
I_{PP}	Peak Pulse Current – maximum rated peak impulse current

Electrical Characteristics

Part Number	Marking	V _{DRM} (V)	V _S (V)	V _T (V)	I _{DRM} (μ A)	I _S (mA)	I _T (A)	I _H (mA)	C _O (pF)	V _{PP} 10/700 μ s (V)	I _{PP} 10/1000 μ s (A)
P8800SC	P880C	750	1000	4.0	5.0	800	2.2	50	50	6000	150

Note:

- 1) All measurements are made at an ambient temperature of 25°C. I_{PP} applies to -40°C through +85°C temperature range.
- 2) Off-state capacitance (C_O) is measured at 1 MHz with a 2 V bias and is typical value.

Thermal Considerations

Package	Symbol	Parameter	Value	Unit
DO-214AA SMB	T _J	Operating Junction Temperature	-40 to +150	°C
	T _S	Storage Temperature Range	-40 to +150	°C
	R _{JA}	Junction to Ambient on printed circuit	53	°C/W

Characteristics Curves

Figure 1. V-I Characteristics

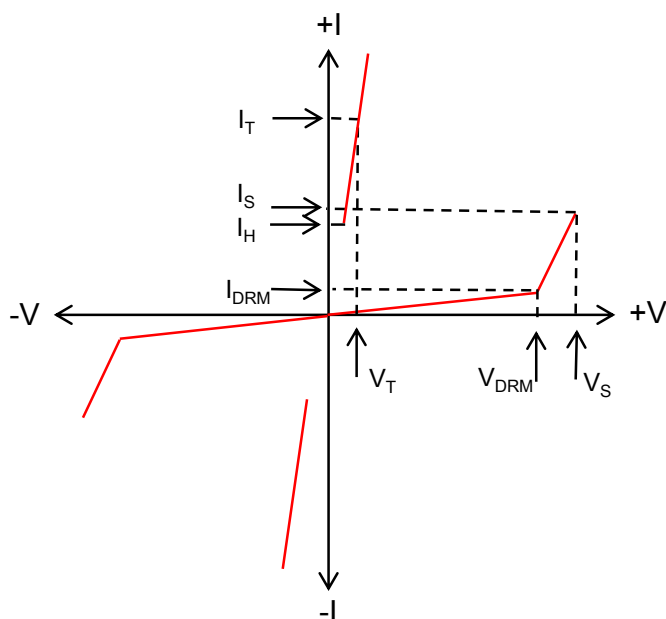


Figure 2. $t_r \times t_d$ Pulse Wave-form

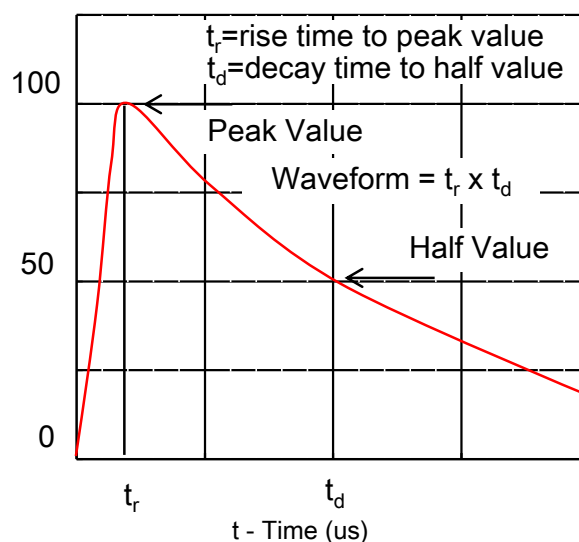


Figure 3. Normalized V_S Change versus Junction Temperature

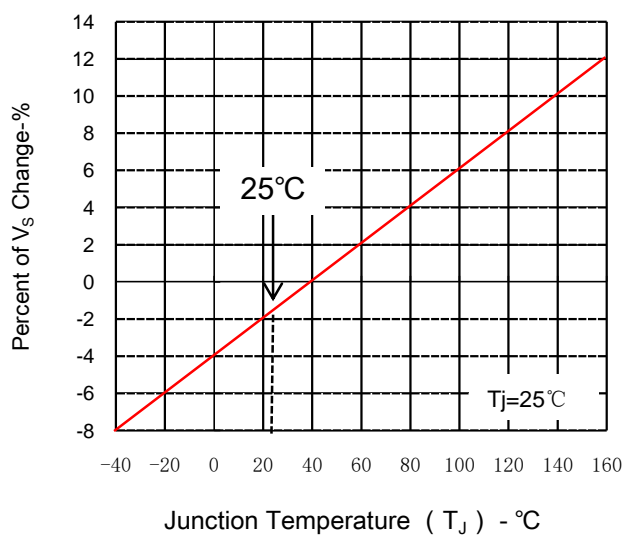


Figure 4. Normalized DC Holding Current versus Case Temperature

