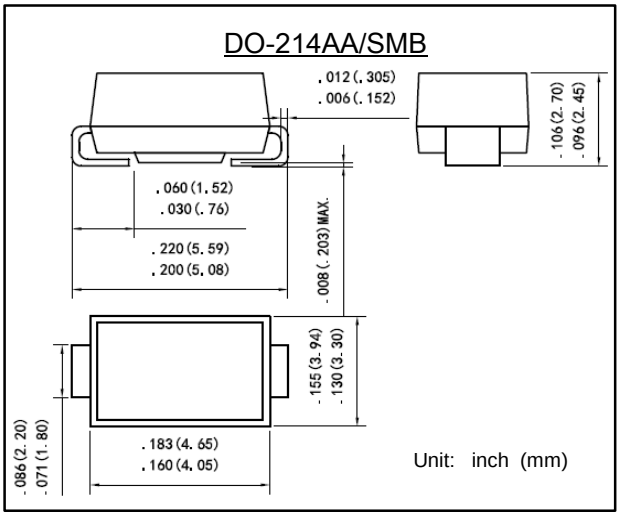
P8800SC

Surface Mounted Over-voltage Protection Thyristor



Features

- Low reverse leakage
- High reliability
- High temperature soldering guaranteed: 260℃/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

P8800SC				
Parameter	**Symbol**	**Conditions**	**Value**	**Units**
Peak off-state voltage	V_{DRM}		750	V
Maximum Off-state current	I_{DRM}	@V_{DRM}	5.0	μA
Maximum Switching voltage	V_S	@100KV/s	980	V
Maximum Switching current	I_S		800	mA
Maximum On-state voltage	V_T	@ I_T	4.0	V
Maximum On-state current	I_T		2.2	A
Holding current	I_H		100	mA
Maximum Off-state capacitance	C_O	V_{DC}=2V, V_{RMS}=1V, f=1MHz	35	pF

Thermal Considerations

Package	Symbol	Parameter	Value	Unit
DO-214AA SMB	T_J	Operating Junction Temperature	-40 to +150	℃
	T_S	Storage Temperature Range	-40 to +150	℃
	R_{JA}	Junction to Ambient on printed circuit	53	℃/W

Surge Peak	**Series**		
	B	**C**	**D**
10/700μs	4000V	6000V	8000V

Characteristics Curves

Figure 1. V-I Characteristics

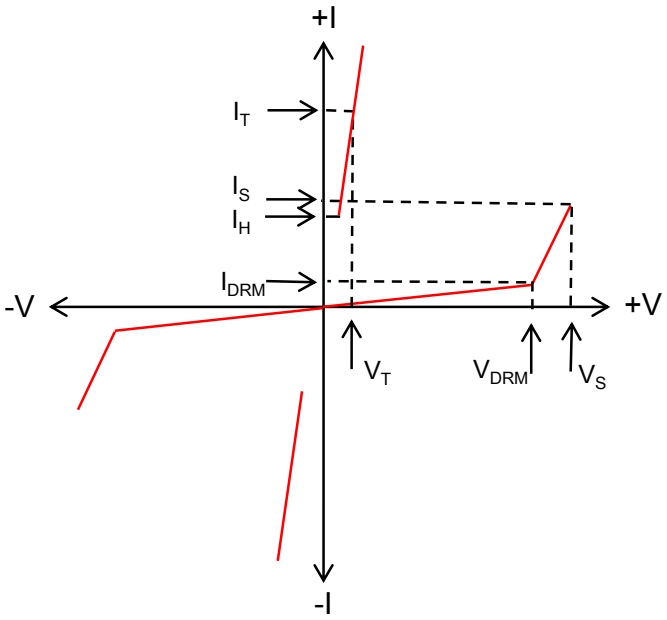


Figure 2. t_r x t_d Pulse Wave-form

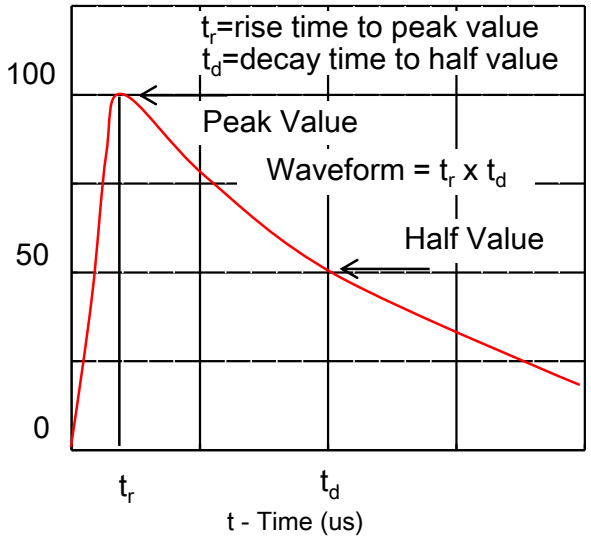


Figure 3. Normalized V_S Change versus Junction Temperature

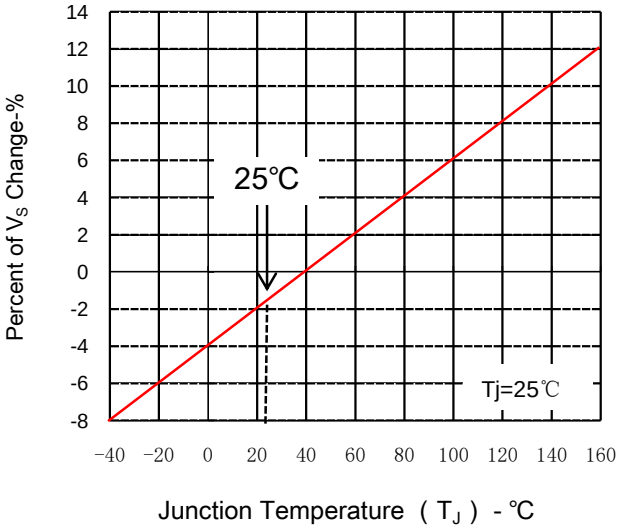


Figure 4. Normalized DC Holding Current versus Case Temperature