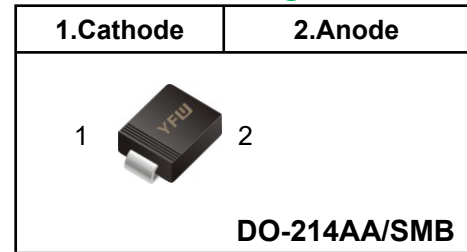


**Surface Mounted Over-voltage Protection Thyristor**  
**Reverse Voltage 6.0 ~ 390 V**

**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

**Pinning**



**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	VDRM (V)	V <sub>S</sub> (V)	V <sub>T</sub> (V)	I <sub>DRM</sub> (uA)	I <sub>S</sub> (mA)	I <sub>T</sub> (A)	I <sub>H</sub> (mA)	C <sub>O</sub> (pF)	V <sub>PP</sub> 10/700us (V)	I <sub>PP</sub> 10/1000us (A)
P0060SC	P006C	6	25	4.0	5.0	800	2.2	50	105	6000	150
P0080SC	P008C	6	25	4.0	5.0	800	2.2	50	105	6000	150
P0300SC	P030C	25	40	4.0	5.0	800	2.2	50	105	6000	150
P0640SC	P064C	58	77	4.0	5.0	800	2.2	150	95	6000	150
P0720SC	P072C	65	88	4.0	5.0	800	2.2	150	95	6000	150
P0900SC	P090C	75	98	4.0	5.0	800	2.2	150	85	6000	150
P1100SC	P110C	90	130	4.0	5.0	800	2.2	150	85	6000	150
P1300SC	P130C	120	160	4.0	5.0	800	2.2	150	85	6000	150
P1500SC	P150C	140	180	4.0	5.0	800	2.2	150	80	6000	150
P1800SC	P180C	170	220	4.0	5.0	800	2.2	150	80	6000	150
P2300SC	P230C	190	260	4.0	5.0	800	2.2	150	75	6000	150
P2600SC	P260C	220	300	4.0	5.0	800	2.2	150	75	6000	150
P3100SC	P310C	275	350	4.0	5.0	800	2.2	150	65	6000	150
P3500SC	P350C	320	400	4.0	5.0	800	2.2	150	65	6000	150
P4200SC	P420C	390	500	4.0	5.0	800	2.2	0	65	6000	150

Note:

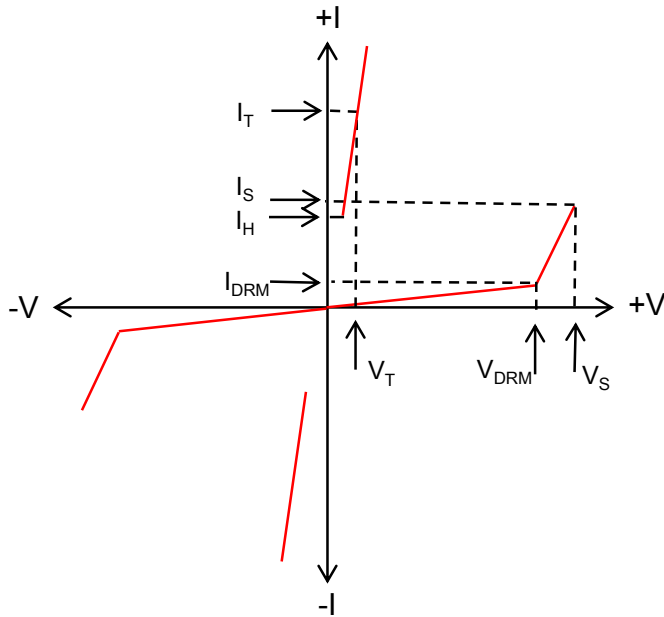
- 1) All measurements are made at an ambient temperature of 25°C. I<sub>PP</sub> applies to -40°C through +85°C temperature range.
- 2) Off-state capacitance (C<sub>O</sub>) is measured at 1 MHz with a 2 V bias and is typical value.

**Thermal Considerations**

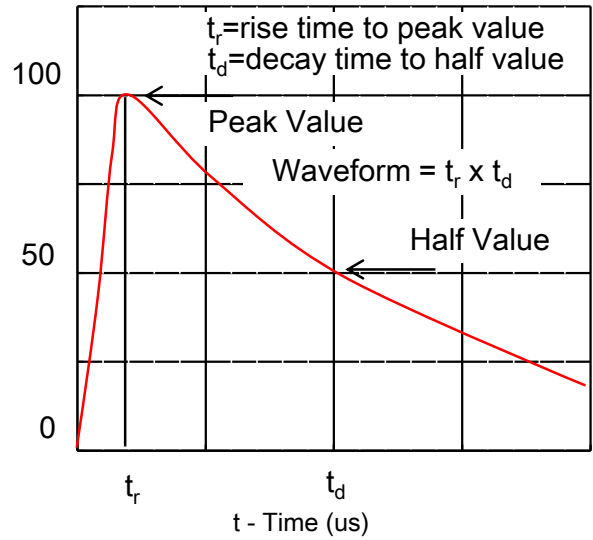
Package	Symbol	Parameter	Value	Unit
DO-214AA SMB	T <sub>J</sub>	Operating Junction Temperature	-40 to +150	°C
	T <sub>S</sub>	Storage Temperature Range	-40 to +150	°C
	R <sub>JA</sub>	Junction to Ambient on printed circuit	53	°C/W

**Characteristics Curves**

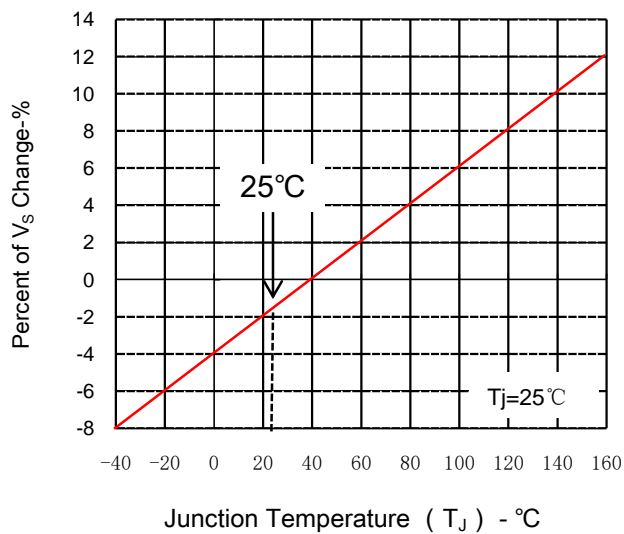
**Figure 1. V-I Characteristics**



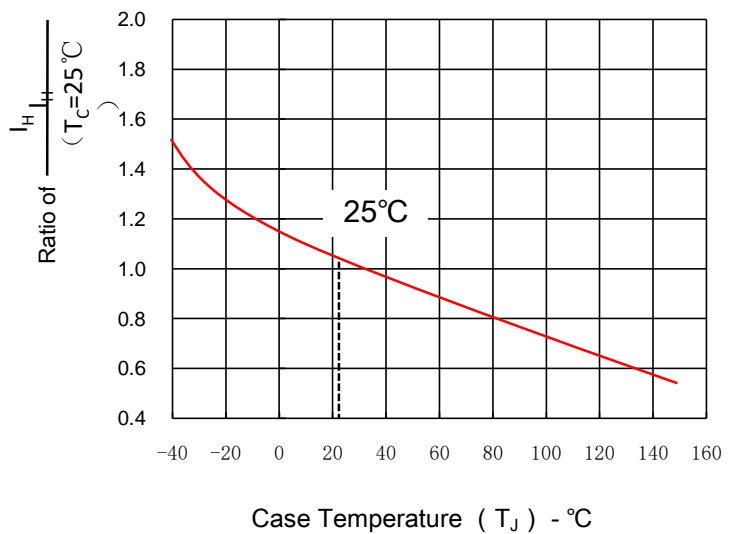
**Figure 2.  $t_r \times t_d$  Pulse Wave-form**



**Figure 3. Normalized  $V_S$  Change versus Junction Temperature**

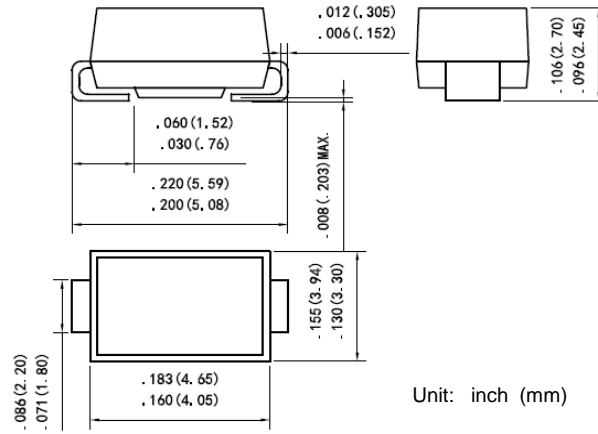


**Figure 4. Normalized DC Holding Current versus Case Temperature**



**Package Outline**

**DO-214AA SMB**



**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
DO-214AA SMB	Tape/Reel,13"reel	3000	EIA-481-1

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[WPGT-2R2700B8L](#) [WPGT-2R1000B8L](#) [WPGT-2N90B6L](#) [WPGT-2N70B6L](#) [WPGT-2N350B6L](#) [WPGT-2N230B6L1](#) [CG90](#) [CG2230](#)  
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