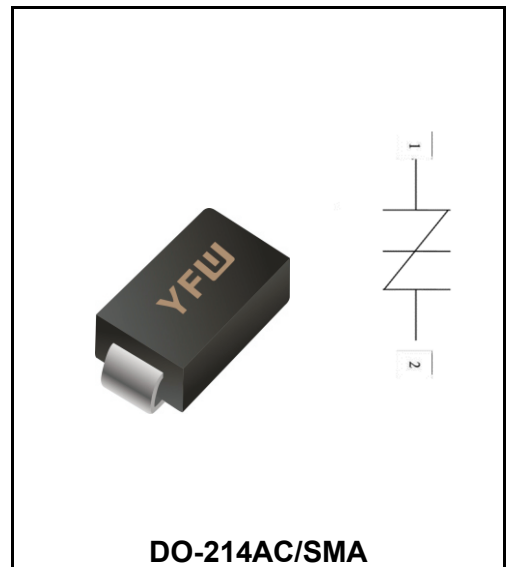


Surface Mounted Over-voltage Protection Thyristor
Reverse Voltage 6.0 ~ 390 V

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



Mechanical Data

- ◆Case:DO-214AC 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} (μA)	I_S (mA)	I_T (A)	I_H (mA)	C_O (pF)	V_{PP} 10/700 μs (V)	I_{PP} 10/700 μs (A)
P0060TA	P006A	6	25	4	5	800	2.2	50	50	3000	75
P0080TA	P008A	6	25	4	5	800	2.2	50	50	3000	75
P0300TA	P030A	25	40	4	5	800	2.2	50	70	3000	75
P0640TA	P064A	58	77	4	5	800	2.2	150	50	3000	75
P0720TA	P072A	65	88	4	5	800	2.2	150	50	3000	75
P0900TA	P090A	75	98	4	5	800	2.2	150	45	3000	75
P1100TA	P110A	90	130	4	5	800	2.2	150	45	3000	75
P1300TA	P130A	120	160	4	5	800	2.2	150	45	3000	75
P1500TA	P150A	140	180	4	5	800	2.2	150	40	3000	75
P1800TA	P180A	170	220	4	5	800	2.2	150	40	3000	75
P2300TA	P230A	190	260	4	5	800	2.2	150	35	3000	75
P2600TA	P260A	220	300	4	5	800	2.2	150	35	3000	75
P3100TA	P310A	275	350	4	5	800	2.2	150	30	3000	75
P3500TA	P350A	320	400	4	5	800	2.2	150	30	3000	75
P4200TA	P420A	390	500	4	5	800	2.2	0	30	3000	75

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-214AC SMA	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	85	°C/W

Characteristics Curves

Figure 1. V-I Characteristics

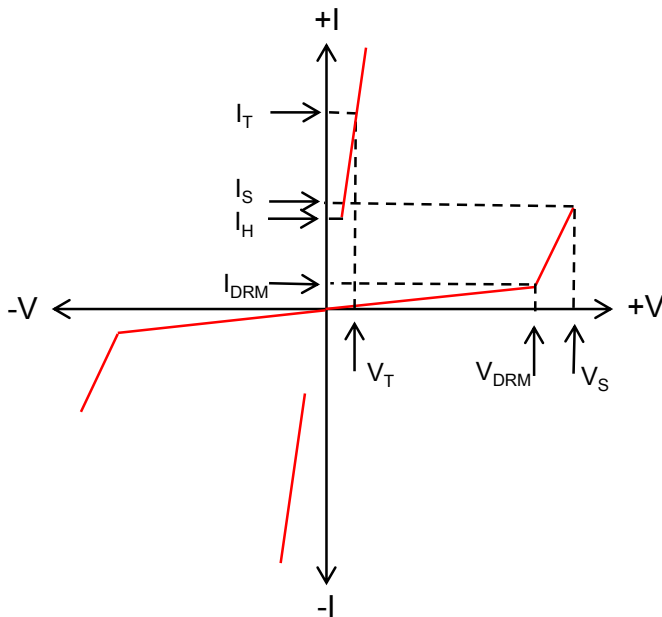


Figure 2. $t_r \times t_d$ Pulse Wave-form

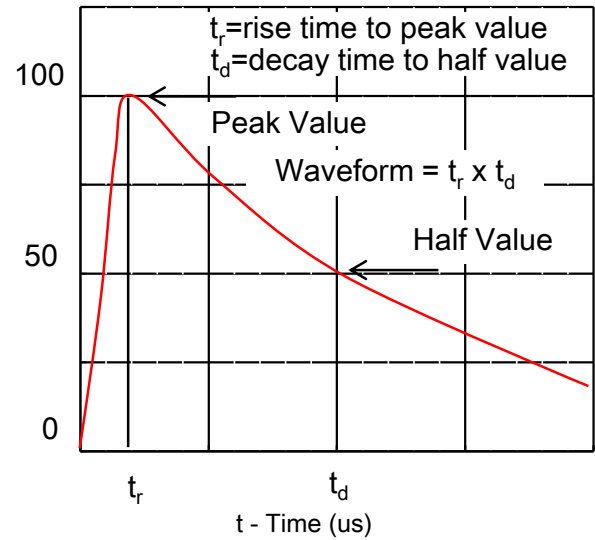


Figure 3. Normalized V_S Change versus Junction Temperature

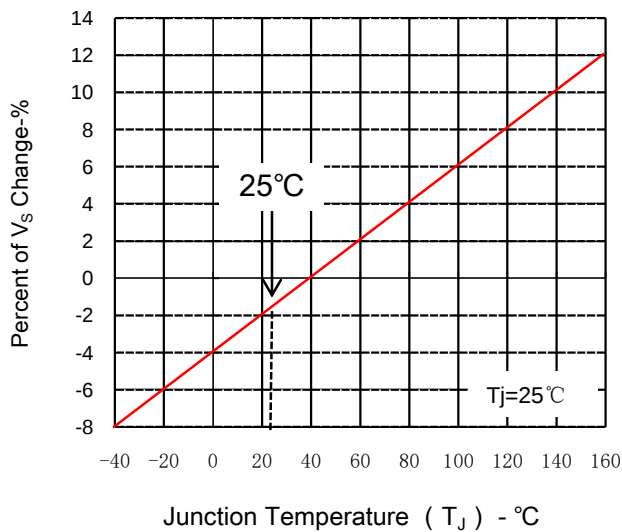
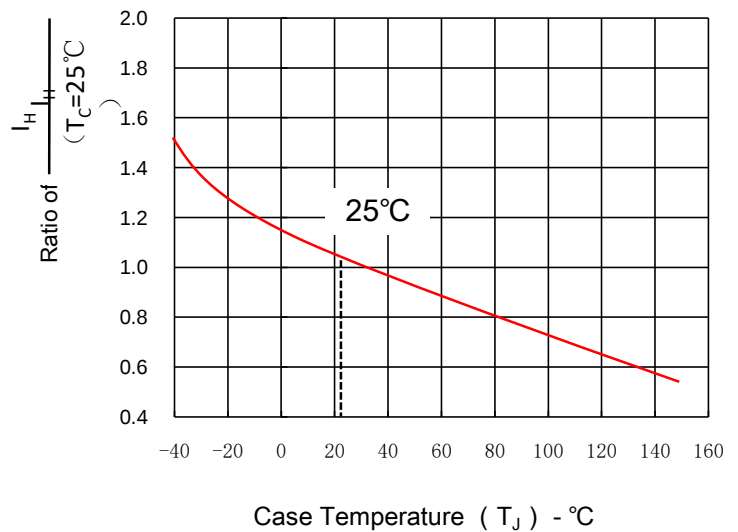
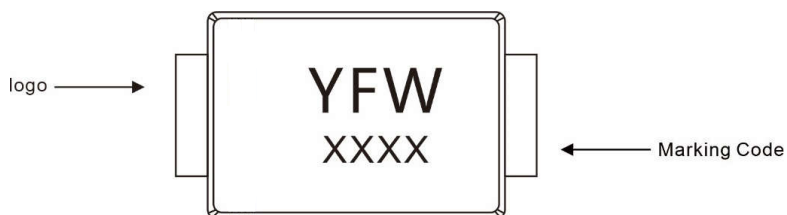


Figure 4. Normalized DC Holding Current versus Case Temperature



Marking Diagram



Ordering information

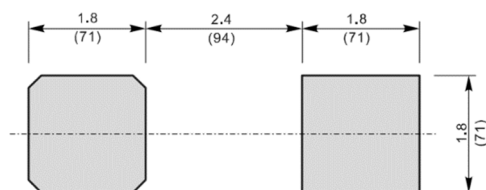
Package	Packing Description	Packing Quantity
DO-214AC SMA	Tape/Reel, 13" reel	5000PCS/Reel 50000PCS/Cartron

Package Dimensions

DO-214AC SMA

Dim.	Millimeter(mm)		mil	
	Min.	Max.	Min.	Max.
A	1.9	2.45	75	96
D	4.0	4.5	157	181
E	2.5	2.8	100	110
H _E	4.7	5.2	185	205
c	0.15	0.31	6	12
e	1.3	1.8	51	71
g	0.9	1.5	35	59
b	0.05	0.2	2	7.9
a	0.3		12	

The recommended mounting pad size



Unit : $\frac{\text{mm}}{(\text{mil})}$

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