

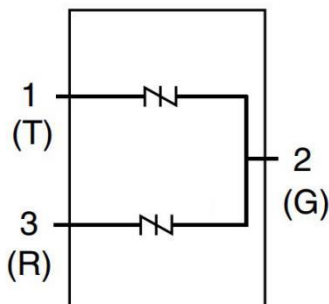
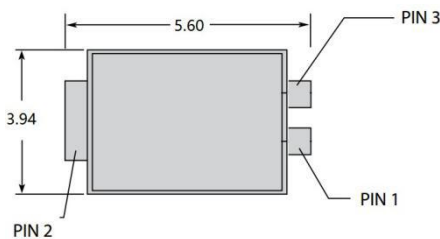
Description

WPXXXXS2C series thyristors are a type of semi-conduct component. They are designed in applications, modems, telephones, line cards, answering machines, FAX machines, SLICs, T1/E1, xDSL, PBXs and more.

Features

- For surface mounted applications to optimize board space
- Low profile package
- Bidirectional crowbar protection
- Low leakage current : $I = 5\mu\text{A max}$
- Low on-state voltage
- Low Capacitance
- Solid-state silicon technology
- Eliminates overvoltage caused by fast rising transients

Dimensions & Symbol (Unit: mm Max)



Mechanical Characteristics

Package: SMB/DO-214AA

- Case Material: "Green" Molding Compound.
- UL Flammability Classification Rating 94V-0
- Standard Packaging: 12mm tape (EIA STD RS-481)
- Weight: 0.10g
- Terminal Connections: See Diagram Below
- Marking Information: See Below

Applications Standards

TIA-968-A/B
 ITU K.20/21 Enhanced Level*
 ITU K.20/21 Basic Level*
 GR 1089 Inter-building*
 GR 1089 Intra-building
 IEC 61000-4-5 2nd edition
 YD/T 1082 YD/T 993 YD/T 950

Marking Information



Ordering Information

Out line	Reel (pcs)	Per carton (pcs)	Reel diameters (mm)
Taping	3K	30K	330

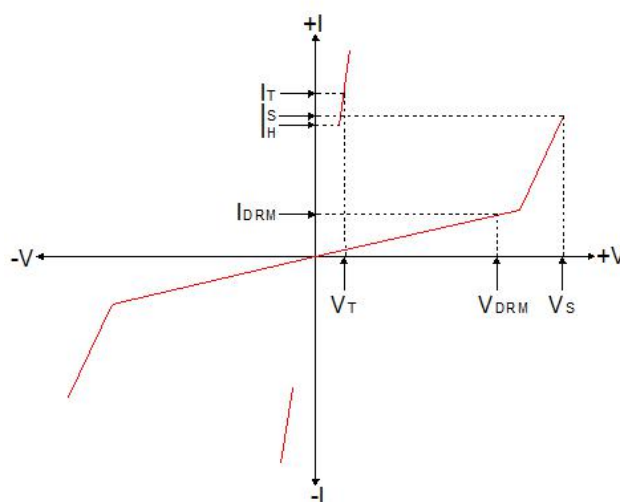
Absolute Maximum Ratings ($T_A=25^{\circ}\text{C}$, RH=45%-75%, unless otherwise noted)

Parameter	Symbol	Value	Unit
Storage temperature range	T_{stg}	-60 to +150	$^{\circ}\text{C}$
Operating junction temperature range	T_j	-40 to +150	$^{\circ}\text{C}$
Repetitive peak pulse current(5/320uS)	I_{PP}	150	A

Electrical Characteristics ($T_A=25^{\circ}\text{C}$)

Symbol	Parameter
V_{DRM}	Peak off-state voltage
I_{DRM}	Off-state current
V_s	Switching voltage
I_s	Switching current
V_T	On-state voltage
I_T	On-state current
I_H	Holding current
C_O	Off-state capacitance

V-I Curve



Part Number	$I_{\text{DRM}}@V_{\text{DRM}}$		$V_s^{①}@I_s$		$V_T@I_T$		I_H	$C_O^{②}$	Marking
	μA	V	V	mA	V	A	mA	pF	
	max	PIN1-2 PIN3-2	max	max	max	max	min	max	
WP0640S2C	5	58	77	800	4	2.2	55	45	0640S2C

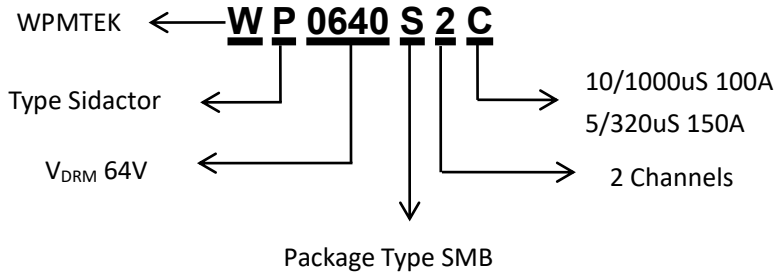
① V_s is measured at 100KV/s

② Off-state capacitance is measured in $V_{\text{DC}}=2\text{V}$, $V_{\text{RMS}}=1\text{V}$, $f=1\text{MHz}$

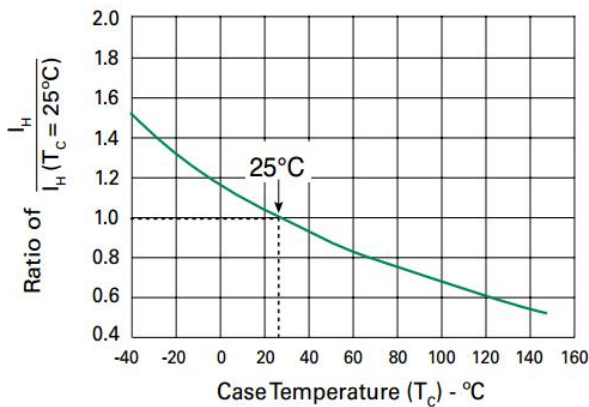
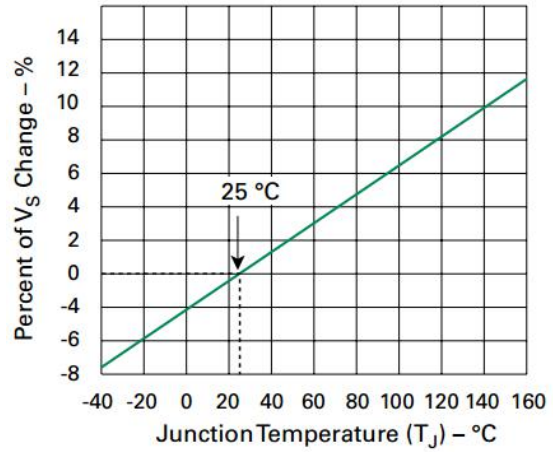
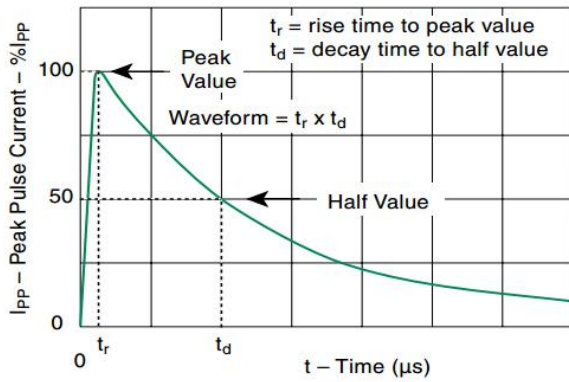
Surge Ratings

Series	I_{PP} (A) min			
	$2 \times 10\mu\text{s}$	$8 \times 20\mu\text{s}$	$5 \times 320\mu\text{s}$	$10 \times 1000\mu\text{s}$
S2C	500	400	150	100

Part Number Code

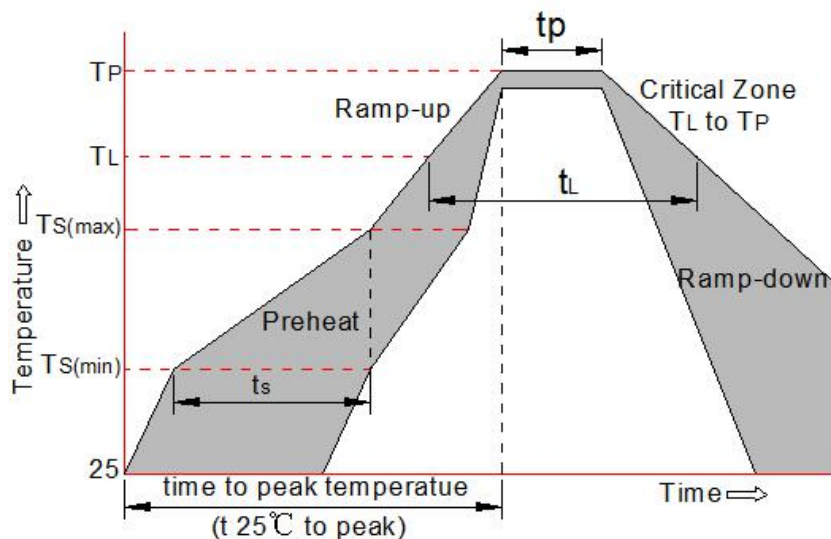


Characteristic Curves

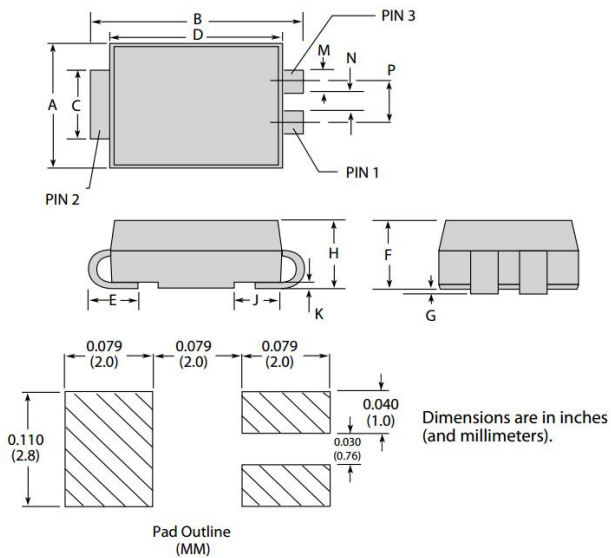


Soldering Parameters

Reflow Condition		Pb-Free assembly (see FIG.2)
Pre Heat	-Temperature Min ($T_{s(min)}$)	+150°C
	-Temperature Max($T_{s(max)}$)	+200°C
	-Time (Min to Max) (t_s)	60-180 secs.
Average ramp up rate (Liquid us Temp (T_L) to peak)		3°C/sec. Max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature(T_L) (Liquid us)	+217°C
	-Temperature(t_L)	60-150 secs.
Peak Temp (T_p)		+260(+0/-5)°C
Time within 5°C of actual Peak Temp (t_p)		30 secs. Max
Ramp-down Rate		6°C/sec. Max
Time 25°C to Peak Temp (T_p)		8 min. Max
Do not exceed		+260°C

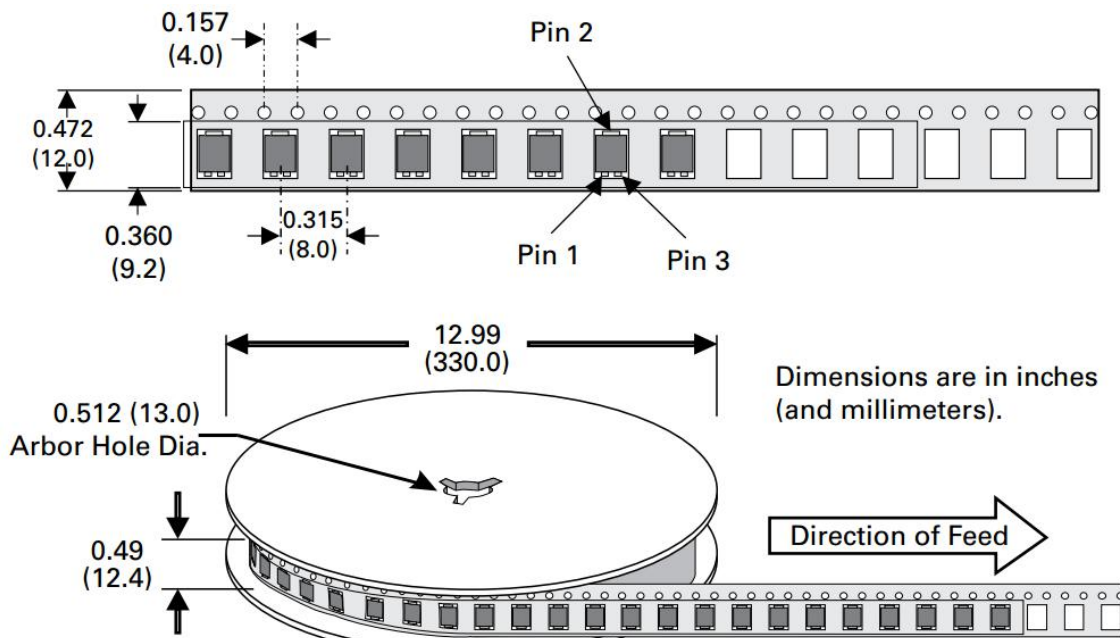


Package Mechanical Data



DIM	Inches		Millimeters	
	Min	Max	Min	Max
A	0.130	0.156	3.30	3.95
B	0.201	0.220	5.10	5.60
C	0.077	0.087	1.95	2.20
D	0.159	0.181	4.05	4.60
E	0.030	0.063	0.75	1.60
F	0.075	0.096	1.90	2.45
G	0.002	0.008	0.05	0.20
H	0.077	0.104	1.95	2.65
K	0.006	0.016	0.15	0.41
M	0.022	0.028	0.56	0.71
N	0.027	0.033	0.69	0.84
P	0.052	0.058	1.32	1.47

Tape & Reel Specification - SMB



Contact Information

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