

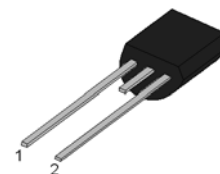


## PxxxxEC Series TSS

Rev.2

### DESCRIPTION:

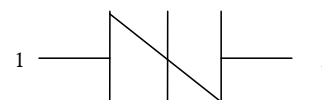
PxxxxEC series thyristors are a type of semiconductor component. They are designed in applications: modems, telephones, line cards, answering machines, FAX machines, SLICs, T1/E1, xDSL, PBXs and more.



TO-92

### FEATURES:

- Excellent capability of absorbing transient surge.
- Quick response to surge voltage (ns Level).
- Eliminates overvoltage caused by fast rising transients.
- Moisture sensitivity level: Level 1.
- Non degenerative.
- Package way:1000pcs / bag.



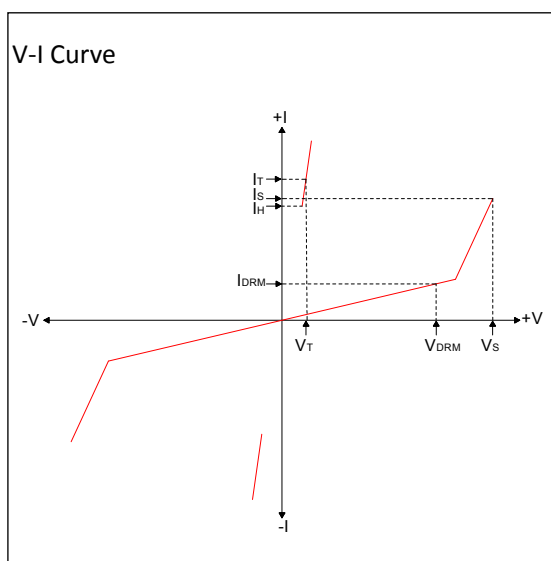
Symbol

### ABSOLUTE MAXIMUM RATINGS (T<sub>A</sub>=25°C, unless otherwise noted)

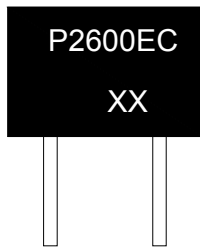
Parameter	Symbol	Value	Unit
Storage temperature range	T <sub>STG</sub>	-60 to +150	°C
Operating junction temperature range	T <sub>J</sub>	-40 to +125	°C
Repetitive peak pulse current	I <sub>PP</sub>	100	A

### ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C)

Symbol	Parameter
V <sub>DRM</sub>	Peak off-state voltage
I <sub>DRM</sub>	Off-state current
V <sub>S</sub>	Switching voltage
I <sub>S</sub>	Switching current
V <sub>T</sub>	On-state voltage
I <sub>T</sub>	On-state current
I <sub>H</sub>	Holding current
C <sub>O</sub>	Off-state capacitance



MARKING



P2600EC: Device Marking Code  
 XX: The production cycle

ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C, continued)

Part Number	I <sub>DRM</sub> @V <sub>DRM</sub>		V <sub>S</sub> @I <sub>S</sub>		V <sub>T</sub> @ I <sub>T</sub>		I <sub>H</sub>	C <sub>O</sub> <sup>①</sup>	Marking
	μA	V	V	mA	V	A	mA	pF	
	max		max		max	max	min	max	
P0080EC	1	6	15	800	4	2.2	50	80	P0080EC
P0640EC	1	58	77	800	4	2.2	120	200	P0640EC
P0720EC	1	65	87	800	4	2.2	120	150	P0720EC
P2300EC	1	190	260	800	4	2.2	150	60	P2300EC
P2600EC	1	220	300	800	4	2.2	150	60	P2600EC
P3100EC	1	275	350	800	4	2.2	150	50	P3100EC
P3500EC	1	320	400	800	4	2.2	150	50	P3500EC

① V<sub>S</sub> is measured at 100KV/s

② Off-state capacitance is measured in V<sub>DC</sub>=2V, V<sub>RMS</sub>=1V, f=1MHz

SURGE RATINGS(Temperature range: -40 ~+85°C)

Series	I <sub>PP</sub> (A) min			
	2×10μs	8×20μs	10×360μs	10×1000μs
C	500	400	175	100

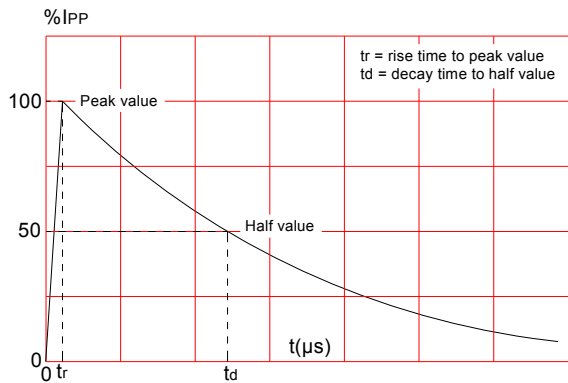
ORDERING INFORMATION

<b>P</b>	<b>008</b>	<b>0</b>	<b>E</b>	<b>C</b>
Series code P: SIDACtor	Median voltage	0: Bi-direction 1: Uni-direction	Package type:TO-92-2L	Surge ratings:6KV(10/700μs)

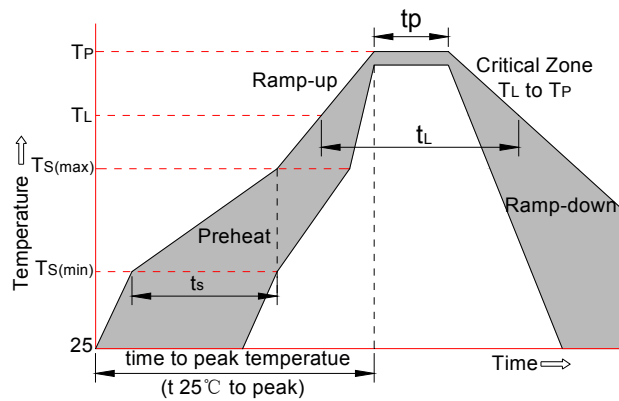
**SOLDERING PARAMETERS**

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) (ts)	60-180 secs.
Average ramp up rate (Liquidus Temp ( $T_L$ ) to peak)		3°C/sec. Max
$T_{s(max)}$ to $T_L$ - Ramp-up Rate		3°C/sec. Max
Reflow	-Temperature( $T_L$ ) (Liquidus)	+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

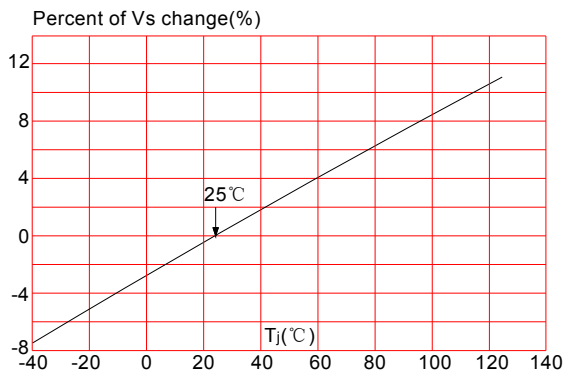
**FIG.1:** tr × td pulse waveform



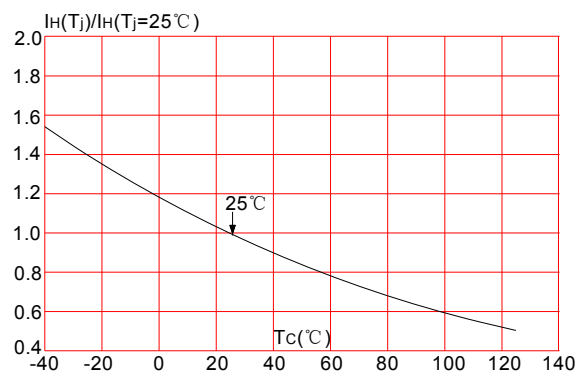
**FIG.2:** Reflow condition



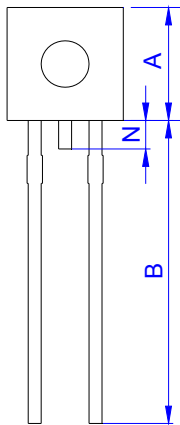
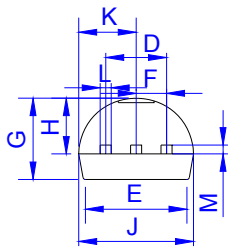
**FIG.3:** Normalized Vs change vs. junction temperature



**FIG.4:** Normalized DC holding current vs. case temperature



## PACKAGE MECHANICAL DATA



TO-92

Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	4.32	5.33	0.170	0.210
B	12.70	15.00	0.500	0.591
D	2.41	2.67	0.095	0.105
E	-	4.3	-	0.169
F	1.16	1.37	0.046	0.054
G	3.18	4.19	0.125	0.165
H	2.04	2.66	0.080	0.105
J	4.45	5.20	0.175	0.205
K	2.04	2.66	0.080	0.105
L	0.41	0.53	0.016	0.021
M	0.36	0.50	0.014	0.020
N	-	1.52	-	0.060

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