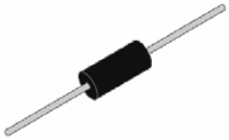
PXXXLBL Series TSS

Description

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



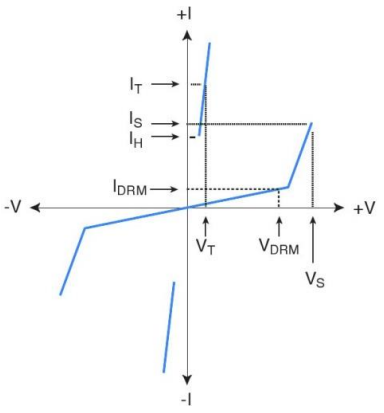
Features

- Case: DO-15
- 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
- Fails short circuit when surged in excess of ratings
- Non degenerative
- IEC61000-4-2 (ESD) ±30kV (air), ±30kV (contact).

Functional Diagram

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 VDRM
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
I_{PP}	Peak Pulse Current – maximum rated peak impulse current



Thermal Considerations

Parameter	Symbol	Value	Unit
Operating Temperature	T_J	-40 to +125	°C
Storage Temperature	T_{STG}	-60 to +150	°C
Junction to free air thermal resistance	$R_{\Theta JA}$	120	°C/ W

Characteristics (T =25°C unless otherwise noted)

Part Number	I_{DRM}@V_{DRM}		V_S①@I_S		V_T@I_T		I_H	C_O②
	μA	V	V	mA	V	A	mA	pF
	MAX.		MAX.	MAX.	MAX.	MAX.	MIN.	MAX.
P0080LBL	1	6	15	800	4	2.2	30	35
P0220LBL	1	18	30	800	4	2.2	25	80
P0300LBL	1	25	40	800	4	2.2	25	80
P0640LBL	1	58	77	800	4	2.2	120	40
P0720LBL	1	65	87	800	4	2.2	120	40
P0900LBL	1	75	98	800	4	2.2	120	40
P1100LBL	1	90	130	800	4	2.2	120	40
P1300LBL	1	120	160	800	4	2.2	120	40

P1500LBL	1	140	180	800	4	2.2	120	35
P1800LBL	1	170	220	800	4	2.2	120	35
P2300LBL	1	190	260	800	4	2.2	120	35
P2600LBL	1	220	300	800	4	2.2	120	30
P3100LBL	1	275	350	800	4	2.2	120	30
P3500LBL	1	320	400	800	4	2.2	120	25
P3800LBL	1	340	450	800	4	2.2	120	25

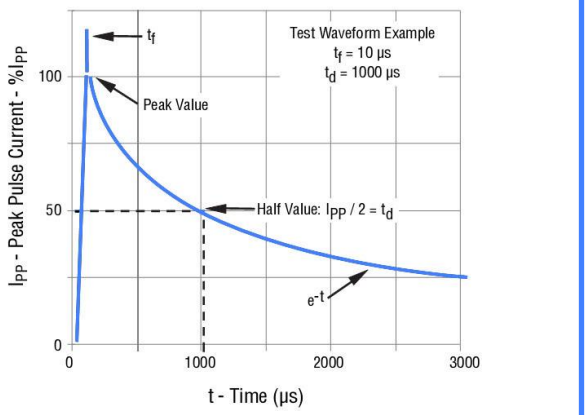
①Vs is measured at 100KV/s

②Off-state capacitance is measured in VDC=2V, VRMS=1V, f=1MHz

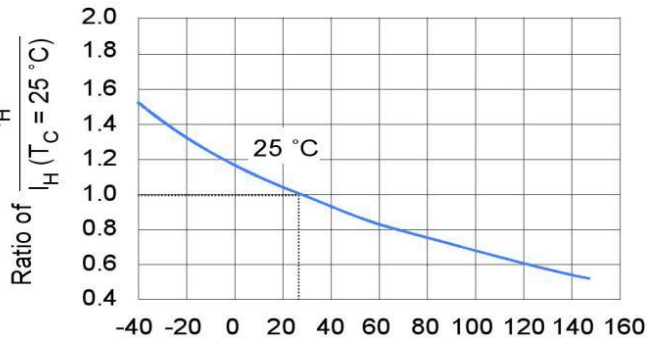
Surge Ratings

Ipp 2/10μS Amps	Ipp 8/20μS Amps	Ipp 10/160μS Amps	Ipp 10/560μS Amps	Ipp 10/1000μS Amps	ITSM 60HZ Amps	Di/Dt Amps /μS
250	250	150	100	80	30	500

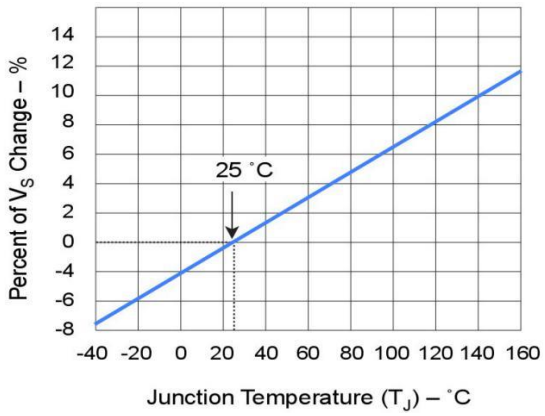
Rating & Characteristic Curves



1. PEAK PULSE CURVE

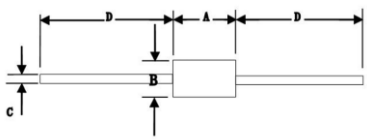


2. Normalized DC Holding Current versus Case Temperature



3. Normalized vs chang versus Junction Temp

Package outline dimensions in millimeters



DO-15

DIM	Millimeters	
	Min.	Max.
A	5.80	7.62
B	2.60	3.60
C	0.70	0.90
D	25.40	-

Disclaimer

Specifications are subject to change without notice.

The device characteristics and parameters in this data sheet can and do vary in different applications and actual device performance may vary over time.

Users should verify actual device performance in their specific applications.