

THYRISTOR BIDIRECTIONAL DO-214AA SMB

PxxxxSx series

MERITEK

FEATURE

- Strong Absorption Capacity of Surge
- High Reliability for Multiple Surge events within Limit
- Low Leakage Current
- Fast Response Time



MECHANICAL DATA

- Case: DO-214AA (SMB), Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- UL Flammability Classification Rating: 94V-0



SURGE RATINGS

Series	V _{DRM} Range (V)	IPP 2×10μs (A)	IPP 8×20μs (A)	IPP 10×160μs (A)	IPP 10×560μs (A)	IPP 10×1000μs (A)	VPP 10×700μs (V)	ITSM 60Hz (A)	di/dt (A/μs)
PxxxxSA	6~320	150	150	90	50	45	2000	20	500
PxxxxSB	6~320	250	250	150	100	80	4000	30	500
PxxxxSC	6~320	500	400	200	150	100	6000	50	500

THERMAL RATINGS

Parameter	Symbols	Value	Unit
Junction to Ambient on printed circuit	R _{θJA}	90	°C/W
Operating Junction	T _J	-40 to +125	°C
Storage Temperature Range	T _{STG}	-40 to +150	°C

PART NUMBERING SYSTEM

P 0080 S A
(1) (2) (3) (4)

No	Item	Code	Description
(1)	Product Code	P	Protection Thyristor series, Bidirectional
(2)	Voltage Code	0080	Peak Off-State Voltage V _{DRM} at 6V
(3)	Package Type	S	DO-214AA SMB package type
(4)	Surge Rating Code	A	I _{PP} Surge Current Type

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ELECTRICAL CHARACTERISTICS

Part Number	Peak Off-State Voltage	Peak Off-State Current	Max Switching Voltage	Max Switching Current	Max On-State Voltage	Max On-state Current	Holding Current	Off-state Capacitance @2V, 1MHz
	V _{DRM} (V)	I _{DRM} (μA)	V _S (V)	I _S (mA)	V _T (V)	I _T (A)	I _H (mA)	C _O (pF)
P0080SA	6	5	25	800	4	2.2	50	50
P0080SB	6	5	25	800	4	2.2	50	70
P0080SC	6	5	25	800	4	2.2	50	100
P0300SA	25	5	40	800	4	2.2	50	70
P0300SB	25	5	40	800	4	2.2	50	70
P0300SC	25	5	40	800	4	2.2	50	100
P0640SA	58	5	77	800	4	2.2	150	50
P0640SB	58	5	77	800	4	2.2	150	60
P0640SC	58	5	77	800	4	2.2	150	100
P0720SA	65	5	88	800	4	2.2	150	50
P0720SB	65	5	88	800	4	2.2	150	60
P0720SC	65	5	88	800	4	2.2	150	100
P0900SA	75	5	98	800	4	2.2	150	45
P0900SB	75	5	98	800	4	2.2	150	55
P0900SC	75	5	98	800	4	2.2	150	90
P1100SA	90	5	130	800	4	2.2	150	45
P1100SB	90	5	130	800	4	2.2	150	55
P1100SC	90	5	130	800	4	2.2	150	90
P1300SA	120	5	160	800	4	2.2	150	45
P1300SB	120	5	160	800	4	2.2	150	55
P1300SC	120	5	160	800	4	2.2	150	90
P1500SA	140	5	180	800	4	2.2	150	40
P1500SB	140	5	180	800	4	2.2	150	60
P1500SC	140	5	180	800	4	2.2	150	85
P1800SA	170	5	220	800	4	2.2	150	40
P1800SB	170	5	220	800	4	2.2	150	60
P1800SC	170	5	220	800	4	2.2	150	85
P2300SA	190	5	260	800	4	2.2	150	35
P2300SB	190	5	260	800	4	2.2	150	55
P2300SC	190	5	260	800	4	2.2	150	80
P2600SA	220	5	300	800	4	2.2	150	35
P2600SB	220	5	300	800	4	2.2	150	50
P2600SC	220	5	300	800	4	2.2	150	80
P3100SA	275	5	350	800	4	2.2	150	30
P3100SB	275	5	350	800	4	2.2	150	45
P3100SC	275	5	350	800	4	2.2	150	65
P3500SA	320	5	400	800	4	2.2	150	30
P3500SB	320	5	400	800	4	2.2	150	40
P3500SC	320	5	400	800	4	2.2	150	65

Notes:

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

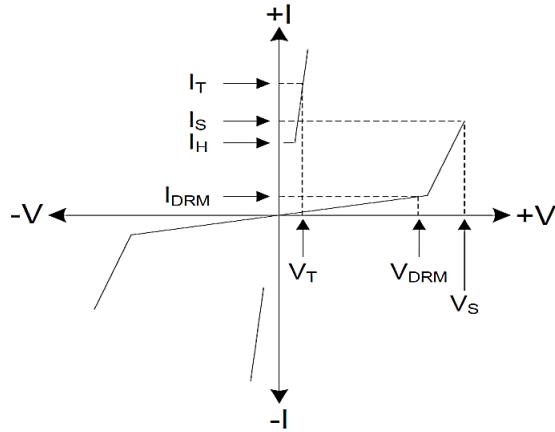
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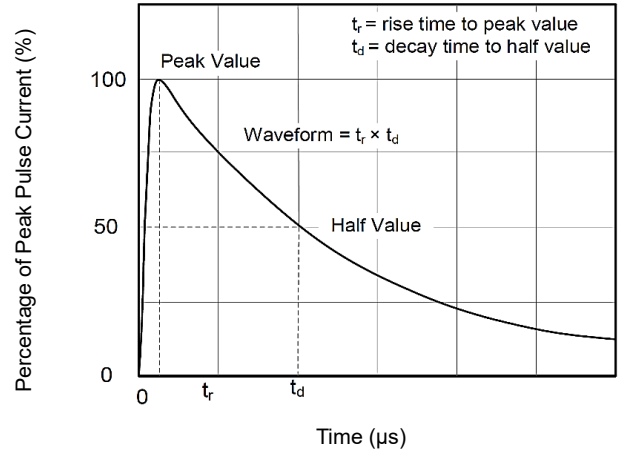
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CHARACTERISTIC CURVES

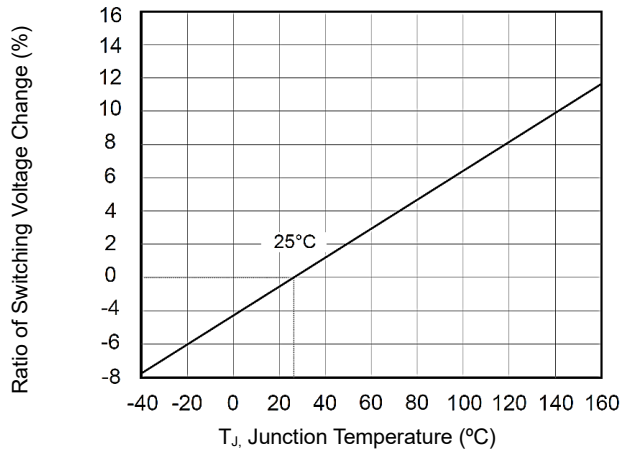
V-I Characteristics



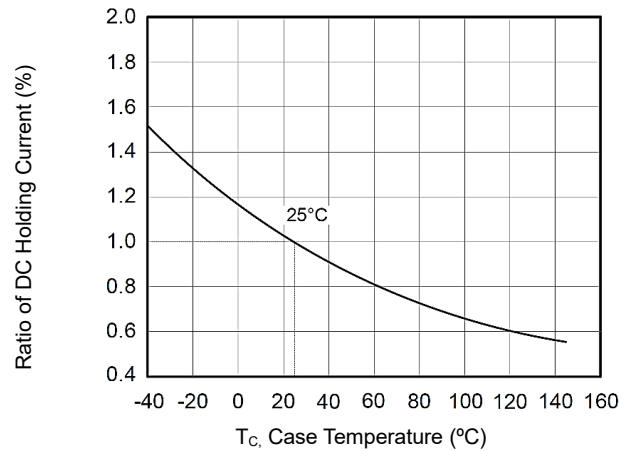
Pulse Waveform



Switching Voltage Change

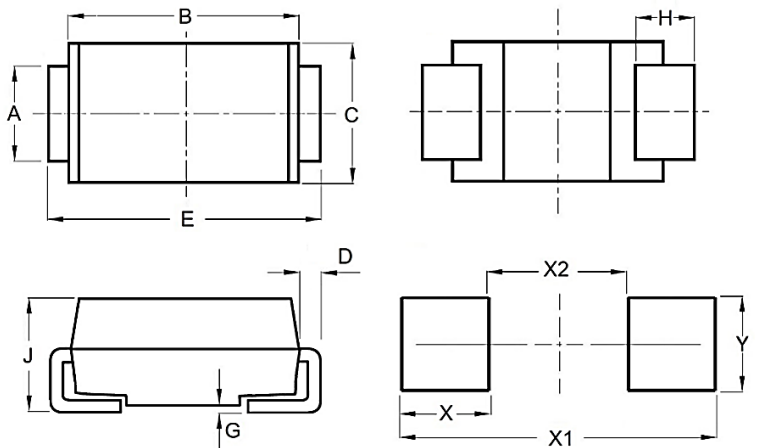


DC Holding Current



DIMENSIONS

Item	Min (mm)	Max (mm)
A	1.900	2.200
B	4.060	4.700
C	3.300	3.940
D	0.152	0.305
E	5.210	5.590
G	0.000	0.203
H	0.760	1.520
J	1.950	2.650
X		2.16
X1		7.06
X2		2.74
Y		2.26



*Specifications subject to change without notice.