

# Transient Voltage Suppressors 500W DO-214AC

SACA Series

MERITEK

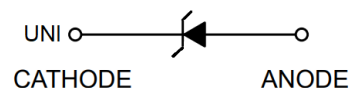
## FEATURE

- 500W Peak Pulse Power (10/1000  $\mu$ s), Repetitive rate: 0.01%
- 5.0V to 50V Stand-Off Voltage
- Excellent Clamping Capability
- Glass Passivated Chip
- Low Leakage
- UL Flammability Classification Rating: 94V-0



## MECHANICAL DATA

- Case: Molded Plastic
- Terminals: Solder Plated, Solderable per MIL-STD-750, Method 2026
- Polarity: Color Band Denotes Cathode End Except Bipolar



## MAXIMUM RATINGS

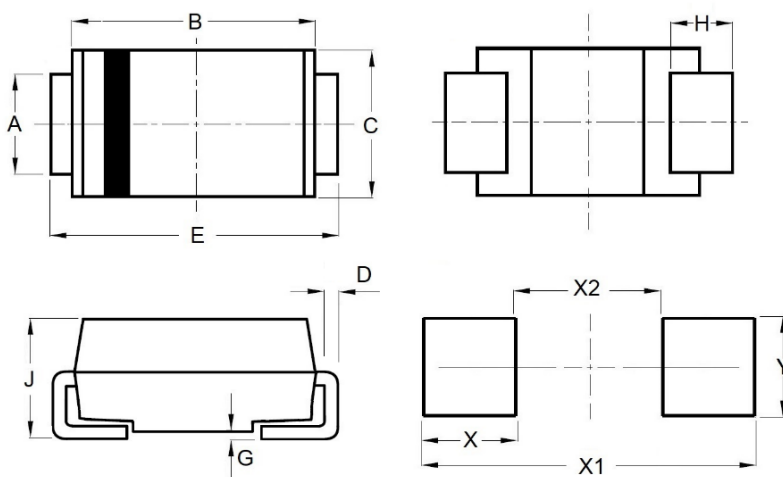
Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000 $\mu$ s waveform	$P_{PP}$	500	W
Power dissipation on infinite heatsink at $T_L = 75^\circ\text{C}$	$P_D$	3.0	W
Peak pulse current with a 10/1000 $\mu$ s waveform	$I_{PP}$	See Next Table	W
Operating junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	$^\circ\text{C}$

Note:

1.  $T_A = 25^\circ\text{C}$  Ambient temperature unless otherwise specified.
2. Non-repetitive current pulse and derated above  $T_A = 25^\circ\text{C}$

## DIMENSIONS - DO-214(SMA)

Item	Min (mm)	Max (mm)
A	1.23	1.63
B	4.10	4.55
C	2.51	2.76
D	0.15	0.30
E	4.87	5.22
G	0.02	0.20
H	0.75	1.51
J	1.96	2.26
X	2.07	
X1	5.80	
X2	1.66	
Y	2.06	



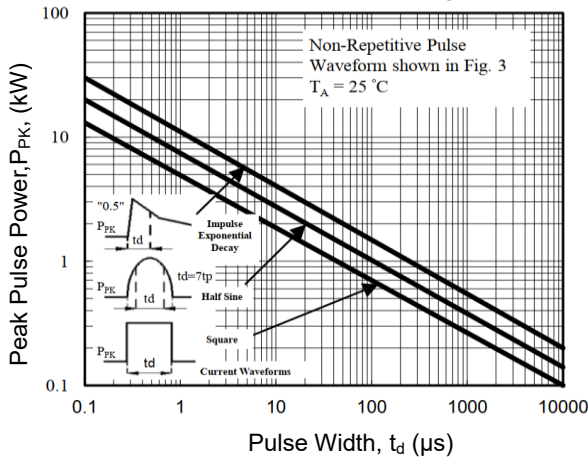
## ELECTRICAL CHARACTERISTICS

Part Number	Working Reverse Voltage	Reverse Breakdown Voltage @ $I_T=1mA$	Max Reverse Leakage Current @ $V_{RWM}$	Max Clamping Voltage @ $I_{PP}$	Reverse Surge Current	Max Junction Capacitance @0V	Working Inverse Blocking Voltage	Peak Inverse Blocking Voltage
	$V_{RWM}$ (V)	$V_{BR}$ Min(V)	$I_R$ ( $\mu A$ )	$V_C$ (V)	$I_{PP}$ (A) Max	$C_J$ (pF)	$V_{WIB}$ (V)	$V_{PIB}$ (V)
SACA5.0	5.0	7.60	300	10.0	44.0	50	75	100
SACA6.0	6.0	7.90	300	11.2	41.0	50	75	100
SACA7.0	7.0	8.33	300	12.6	38.0	50	75	100
SACA8.0	8.0	8.89	100	13.4	36.0	50	75	100
SACA8.5	8.5	9.44	50	14.0	34.0	50	75	100
SACA10	10.0	11.10	5	16.3	29.0	50	75	100
SACA12	12.0	13.30	5	19.0	25.0	50	75	100
SACA15	15.0	16.70	5	23.6	20.0	50	75	100
SACA18	18.0	20.00	5	28.8	15.0	50	75	100
SACA22	22.0	24.40	5	35.4	14.0	50	75	100
SACA26	26.0	28.90	5	42.3	11.1	50	75	100
SACA30	30.0	33.30	5	48.6	10.0	50	75	100
SACA36	36.0	40.00	5	60.0	8.6	50	75	100
SACA45	45.0	50.00	5	77.0	6.8	50	150	200
SACA50	50.0	55.50	5	88.0	5.8	50	150	200

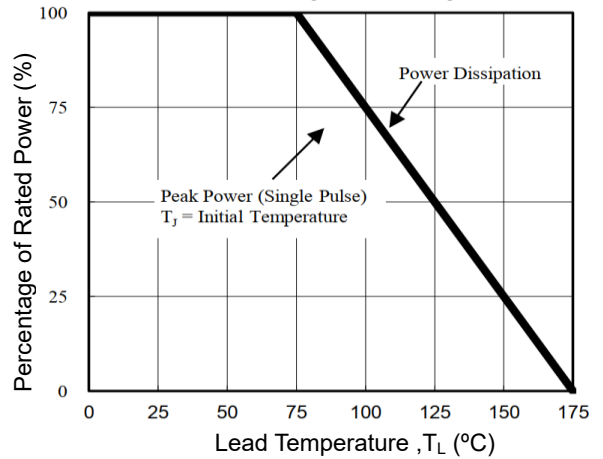
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## CHARACTERISTIC CURVES

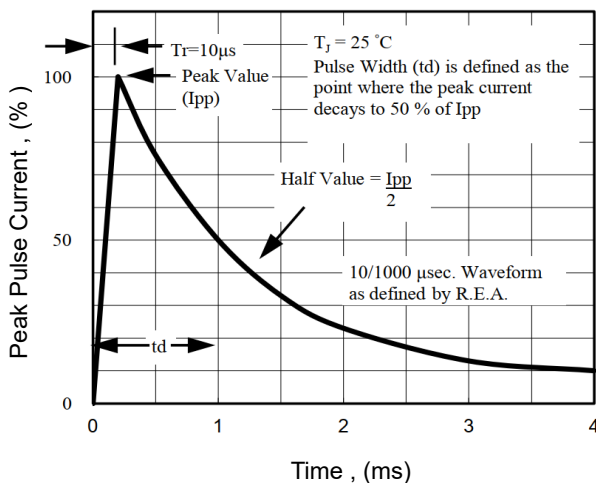
Peak Pulse Power Rating Curve



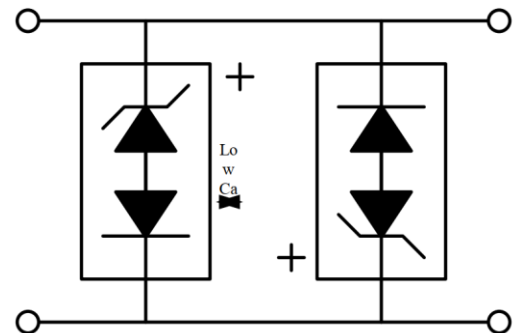
Power Derating Curve Surge Current



Pulse Waveform



AC Line Protection Application



**Application Note:** Device must be used with two units in parallel, opposite in polarity as shown in circuit for AC signal line protection.

\*Specifications subject to change without notice.