

P4SMA18A



DO-214AC (SMA)
Color Band Denotes Cathode
Device Marking: 18A

400 Watt Unidirectional Transient Voltage Suppressor

Absolute Maximum Ratings (Note 1) $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
P_{PPM}	Peak Pulse Power Dissipation on 10/1000 μs waveform	400	W
I_{PPM}	Peak Pulse Current on 10/1000 μs waveform	15.9	A
I_{FSM}	Non-repetitive Peak Forward Surge Current superimposed on rated load (JEDEC method) (Note 2)	40	A

Note 1: These ratings are limiting values above which serviceability of any semiconductor device may be impaired.

Note 2: Measured on 8.3ms single half-sine wave or equivalent square wave. Duty cycle = 4 pulses per minute maximum.

Thermal Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$R_{\theta JA}$	Thermal Resistance from Junction to Ambient	120	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance from Junction to Leads	30	$^\circ\text{C}/\text{W}$
T_{stg}	Storage Temperature Range	-65 to +150	$^\circ\text{C}$
T_J	Operating Junction Temperature	-65 to +150	$^\circ\text{C}$

Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
V_{BR}	Breakdown Voltage at $I_T = 1.0\text{mA}$	17.1 - 18.9	V
α_T	Maximum Temperature Coefficient of V_{BR}	0.089	$\%/^\circ\text{C}$
V_{RWM}	Reverse Stand-off Voltage	15.3	V
I_R	Maximum Reverse Leakage Current @ V_{RWM}	1	μA
V_C	Maximum Clamping Voltage @ I_{PPM}	25.2	V