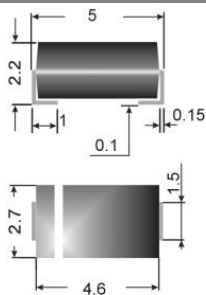


P4 SMA 220 ... P4 SMA 440CA



Surface mount diode

Bidirectional Transient Voltage Suppressor diodes

P4 SMA 220 ... P4 SMA 440CA

Pulse Power Dissipation: 400 W

Stand-off voltage: 175 ... 376 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- For bidirectional types (suffix "C" or "CA") electrical characteristics apply in both directions
- The standard tolerance of the breakdown voltage for each type is $\pm 10\%$. Suffix "A" denotes a tolerance of $\pm 5\%$ for the breakdown voltage.

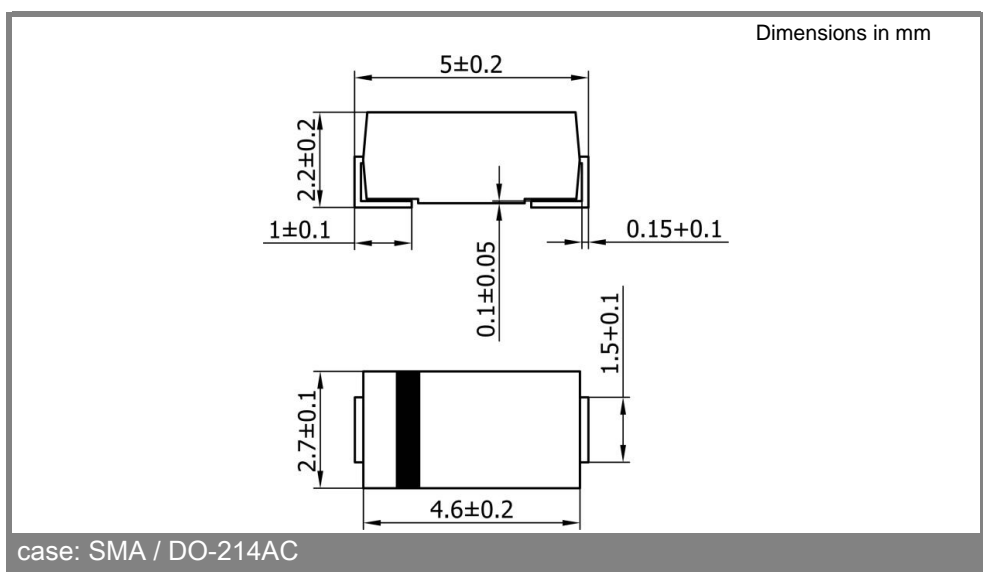
Mechanical Data

- Plastic case: SMA / DO-214AC
- Weight approx.: 0,07 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 7500 pieces per reel

- 1) Non-repetitive current pulse see curve $I_{PPM} = f(t_r)$
- 2) Mounted on P.C. board with 25 mm² copper pads at each terminal
- 3) Unidirectional diodes only
- 4) Bidirectional diodes only

Absolute Maximum Ratings		$T_A = 25^\circ\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
P_{PPM}	Peak pulse power dissipation (10/1000 μs pulse waveform, ¹⁾ $T_a = 25^\circ\text{C}$	400	W
$P_{M(AV)}$	Steady state power dissipation ²⁾ , $T_a = 25^\circ\text{C}$	1	W
I_{FSM}	Peak forward surge current, 60 Hz half sine-wave, ³⁾ $T_a = 25^\circ\text{C}$	40	A
R_{thA}	Max. thermal resistance junction to ambient ²⁾	70	K/W
R_{thT}	Max. thermal resistance junction to terminal	30	K/W
T_j	Operating junction temperature	- 50 ... + 150	$^\circ\text{C}$
T_s	Storage temperature	- 50 ... + 150	$^\circ\text{C}$
V_f	Max. instant. forw. voltage $I_f = A$ ³⁾	-	V
		-	V

Type	Stand-off voltage@ I_D		Breakdown voltage@ I_T		Test current I_T mA	Max. clamping voltage@ I_{PPM}	
	V_{WM} V	I_D μA	min. V	max. V		V_C V	I_{PPM} A
P4SMA 220 ⁴⁾	175	5	198	242	1	344	1,2
P4SMA 220A ⁴⁾	185	5	209	231	1	328	1,2
P4SMA 250C ⁴⁾	202	5	225	275	1	360	1,1
P4SMA 250CA ⁴⁾	214	5	237	263	1	344	1,2
P4SMA 300C ⁴⁾	243	5	270	330	1	430	0,93
P4SMA 300CA ⁴⁾	256	5	285	315	1	414	0,97
P4SMA 350C ⁴⁾	284	5	315	385	1	504	0,79
P4SMA 350CA ⁴⁾	300	5	332	368	1	482	0,83
P4SMA 400C ⁴⁾	324	5	360	440	1	574	0,7
P4SMA 400CA ⁴⁾	342	5	380	420	1	548	0,73
P4SMA 440C ⁴⁾	356	5	396	484	1	631	0,63
P4SMA 440CA ⁴⁾	376	5	418	462	1	602	0,66



P4 SMA 220 ... P4 SMA 440CA

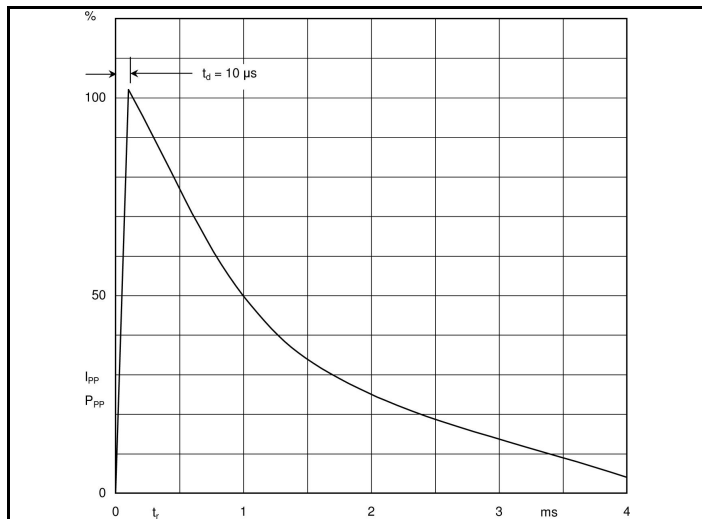


Fig. 1, 10/1000 µs - pulse waveform

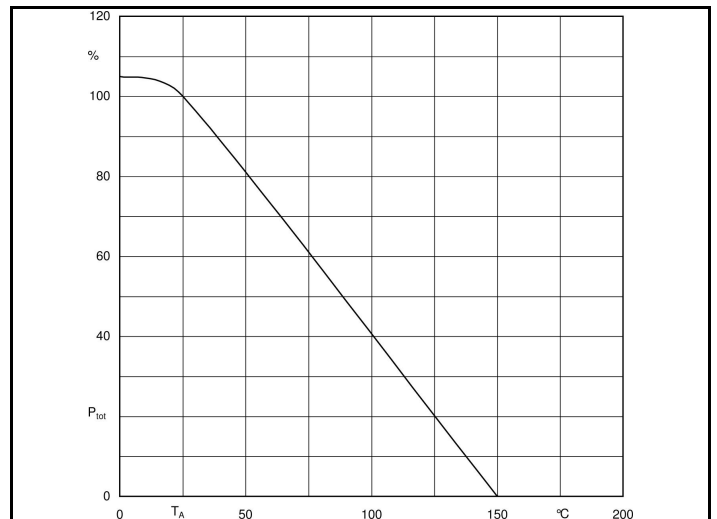


Fig. 2, Rated power dissipation vs. ambient temp. ²⁾

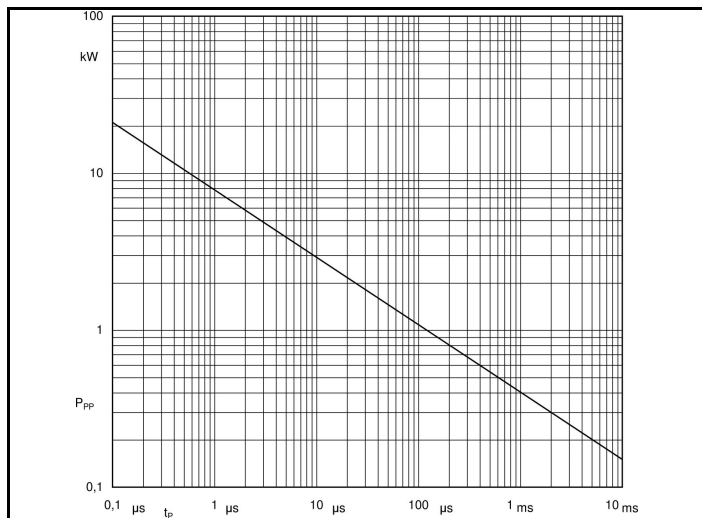


Fig. 3, Peak pulse power versus pulse duration