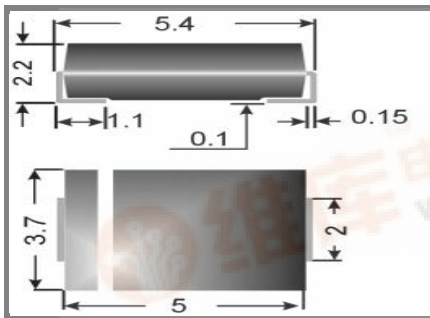


P6 SMBJ 150...P6 SMBJ 180CA



Surface mount diode

Unidirectional and bidirectional Transient Voltage Suppressor diodes

P6 SMBJ 150...P6 SMBJ 180CA

Pulse Power

Dissipation: 600 W

Maximum Stand-off voltage: 150 ... 180 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.

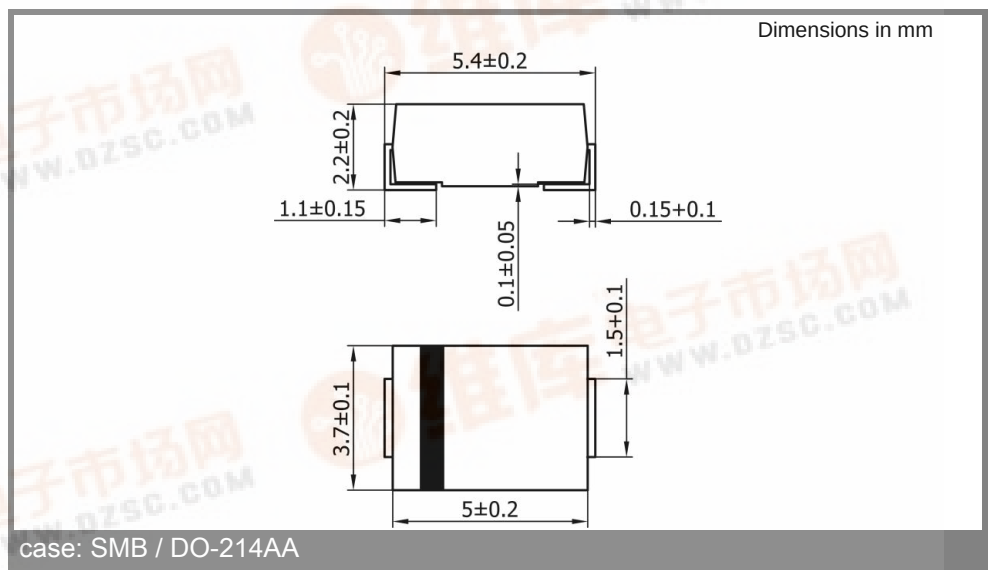
Mechanical Data

- Plastic case SMB / DO-214AA
- Weight approx.: 0,1 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

- Non-repetitive current pulse see curve $I_{PPM} = f(t_r)$
- Mounted on P.C. board with 50 mm² copper pads at each terminal
- Unidirectional diodes only

Absolute Maximum Ratings		$T_c = 25^\circ\text{C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
P_{PPM}	Peak pulse power dissipation 10/1000 μs waveform ¹⁾ $T_a = 25^\circ\text{C}$	600	W
$P_{M(AV)}$	Steady state power dissipation ²⁾ , $T_a = 25^\circ\text{C}$	5	W
I_{FSM}	Peak forward surge current, 60 Hz half sine-wave ³⁾ $T_a = 25^\circ\text{C}$	100	A
R_{thA}	Max. thermal resistance junction to ambient ²⁾	60	K/W
R_{thT}	Max. thermal resistance junction to terminal	15	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 $I_f = 25\text{ A}$ ³⁾	<3,0	V
		-	V

Type	Characteristics		Breakdown voltage@ I_T		Test current I_T mA	Max. clamping voltage@ I_{PPM}	
	Max stand-off voltage@ I_D V_{WM} V	I_D μA	min. V	max. V		V_C V	I_{PPM} A
P6 SMBJ 150	150	5	167	204	1	268	2,2
P6 SMBJ 150A	150	5	167	185	1	243	2,5
P6 SMBJ 160	160	5	178	217	1	287	2,1
P6 SMBJ 160A	160	5	178	198	1	259	2,3
P6 SMBJ 170	170	5	189	231	1	304	2
P6 SMBJ 170A	170	5	189	210	1	275	2,2
P6 SMBJ 180	180	5	209	255	1	344	1,7
P6 SMBJ 180A	180	5	209	231	1	328	2



case: SMB / DO-214AA

P6 SMBJ 150...P6 SMBJ 180CA

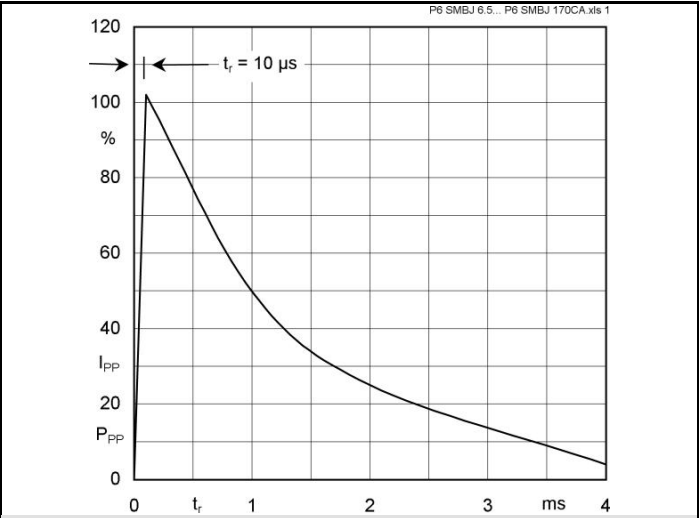


Fig. 1 10/1000 μs - pulse waveform

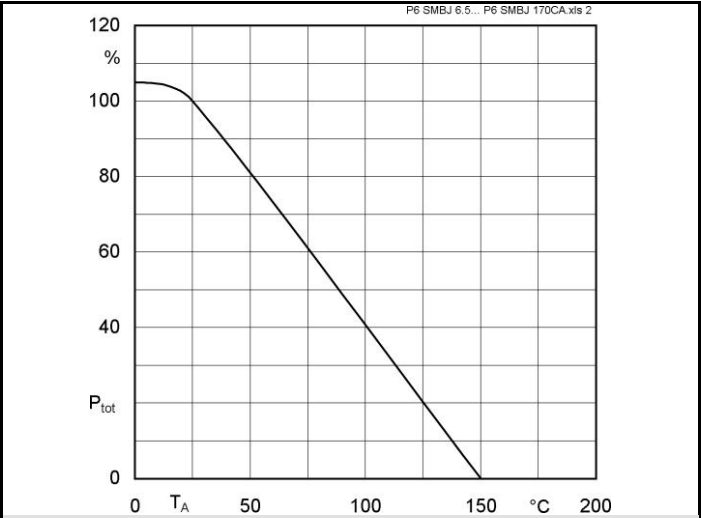


Fig. 2 Rated power dissipation vs. ambient temperature 2)

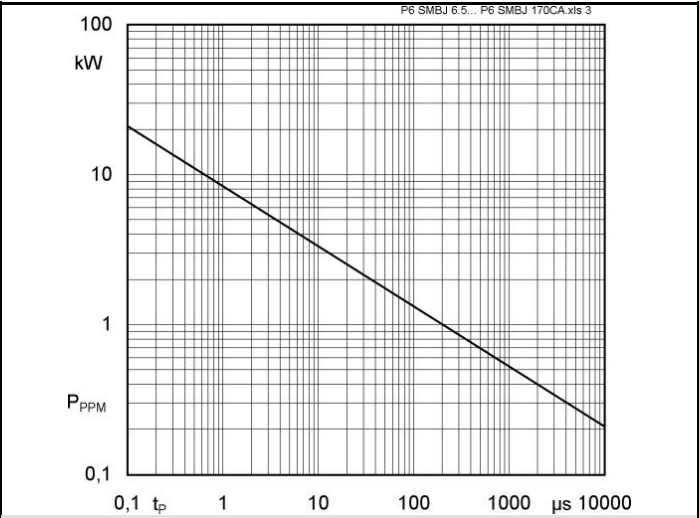


Fig. 3 Peak pulse power versus pulse duration