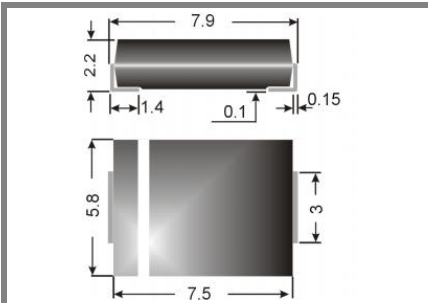


1,5 SMCJ 160 ... 1,5 SMCJ 180CA



Surface mount diode

Unidirectional and bidirectional Transient Voltage Suppressor diodes

1,5SMCJ160 ... 1,5SMCJ180CA

Pulse Power

Dissipation: 1500 W

Stand-off

voltage: 160 ... 180 V

Features

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

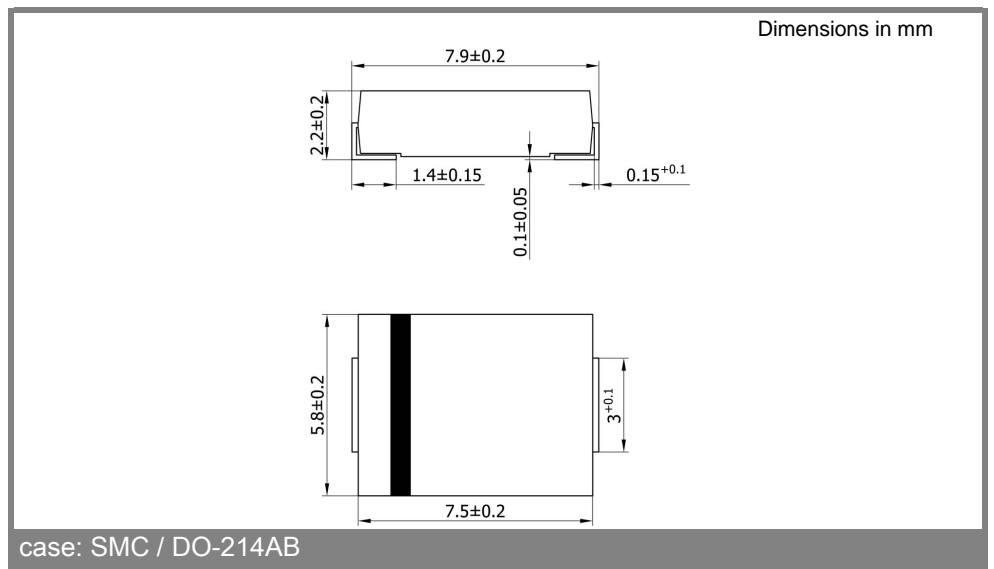
Mechanical Data

- Plastic case: SMC / DO-214AB
- Weight approx.: 0,21 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 3000 pieces per reel

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

Absolute Maximum Ratings		$T_A = 25\text{ °C}$, unless otherwise specified	
Symbol	Conditions	Values	Units
P_{PPM}	Peak pulse power dissipation (10/1000 μ s waveform), ¹⁾ $T_a = 25\text{ °C}$	1500	W
$P_{M(AV)}$	Steady state power dissipation ²⁾ , $T_a = 25\text{ °C}$	5	W
I_{FSM}	Peak forward surge current, 60 Hz half sine-wave, ³⁾ $T_a = 25\text{ °C}$	100	A
R_{thA}	Max. thermal resistance junction to ambient ²⁾	50	K/W
R_{thT}	Max. thermal resistance junction to terminal	10	K/W
T_j	Operating junction temperature	-50 ... +150	°C
T_s	Storage temperature	-50 ... +150	°C
V_f	Max. instant. forw. voltage $I_f = 25\text{ A}$ ³⁾	<3,0	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 μ A	min. V	max. V		V_C V	I_{PPM} A
1,5 SMCJ 160	160	5	178	217	1	287	5,2
1,5 SMCJ 160A	160	5	178	198	1	259	5,8
1,5 SMCJ 170	170	5	189	231	1	304	4,9
1,5 SMCJ 170A	170	5	189	210	1	275	5,5
1,5 SMCJ 180	180	5	209	255	1	344	4,4
1,5 SMCJ 180A	180	5	209	231	1	328	4,6



1,5 SMCJ 160 ... 1,5 SMCJ 180CA

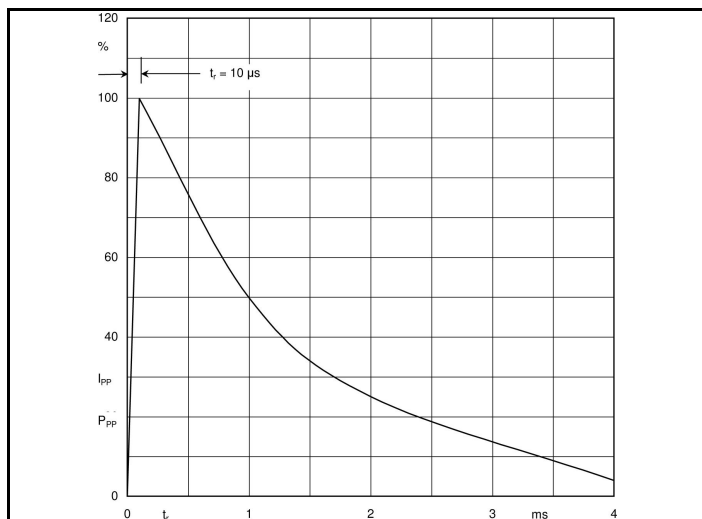


Fig. 1 10/1000 μ s - pulse waveform

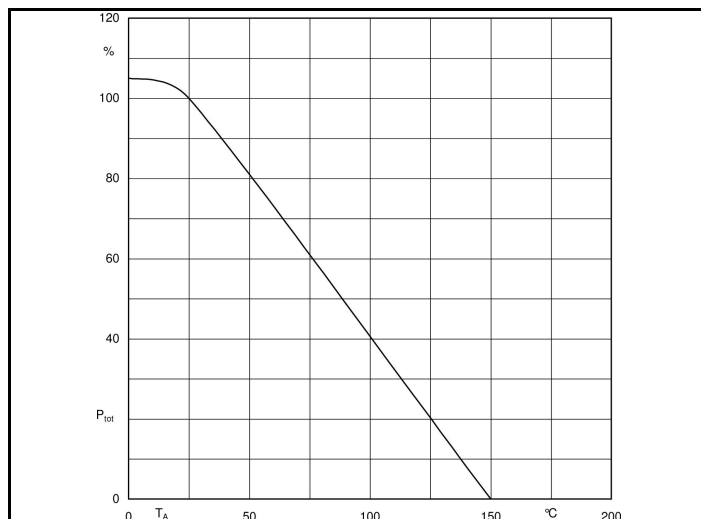


Fig. 2 Rated power dissipation vs. amb. temp. ²⁾

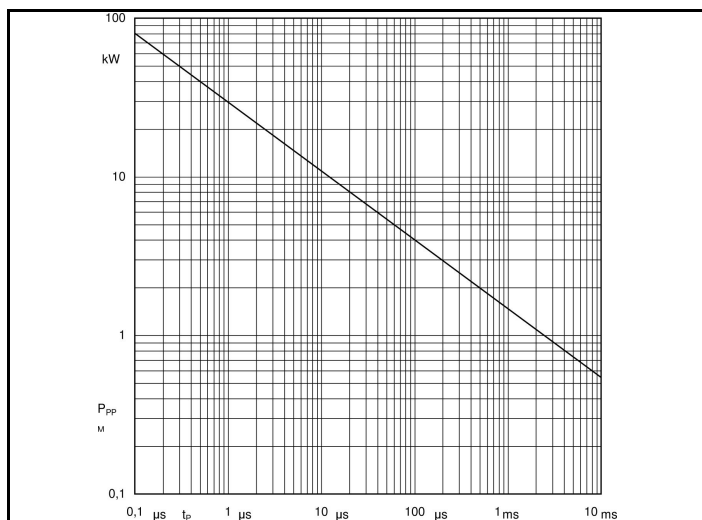


Fig. 3 Peak pulse power versus pulse duration