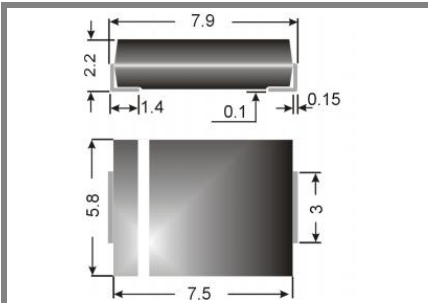


# 1,5 SMCJ 160 ... 1,5 SMCJ 180CA



## 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  $\pm 10\%$ . Suffix "A" denotes a tolerance of  $\pm 5\%$  for the breakdown voltage

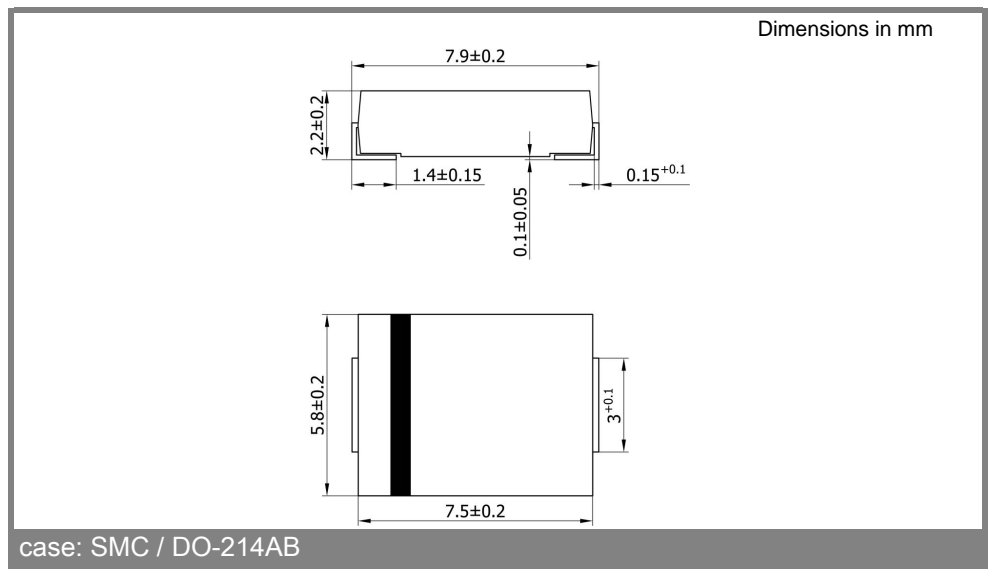
#### Mechanical Data

- 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 mm<sup>2</sup> copper pads at each terminal
- 3) Unidirectional 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 $\mu\text{s}$ waveform), <sup>1)</sup> $T_a = 25^\circ\text{C}$	1500	W
$P_{M(AV)}$	Steady state power dissipation <sup>2)</sup> , $T_a = 25^\circ\text{C}$	5	W
$I_{FSM}$	Peak forward surge current, 60 Hz half sine-wave, <sup>3)</sup> $T_a = 25^\circ\text{C}$	100	A
$R_{thA}$	Max. thermal resistance junction to ambient <sup>2)</sup>	50	K/W
$R_{thT}$	Max. thermal resistance junction to terminal	10	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 $I_f = 25\text{ A}$ <sup>3)</sup>	<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	$I_D$ $\mu\text{A}$	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

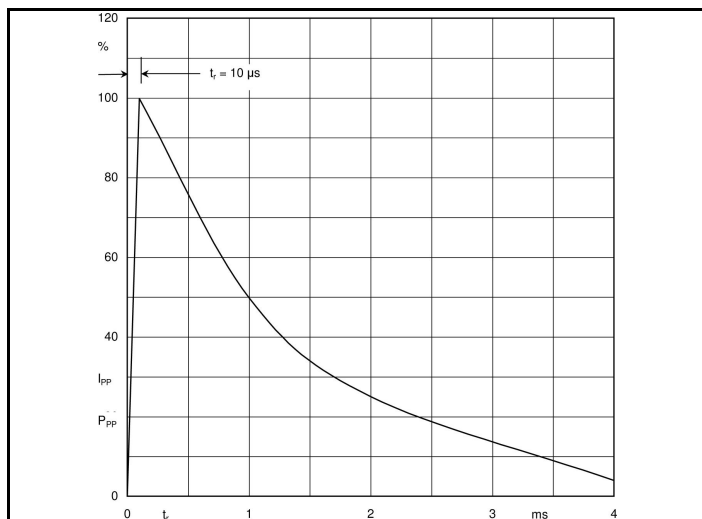


Fig. 1 10/1000  $\mu$ s - pulse waveform

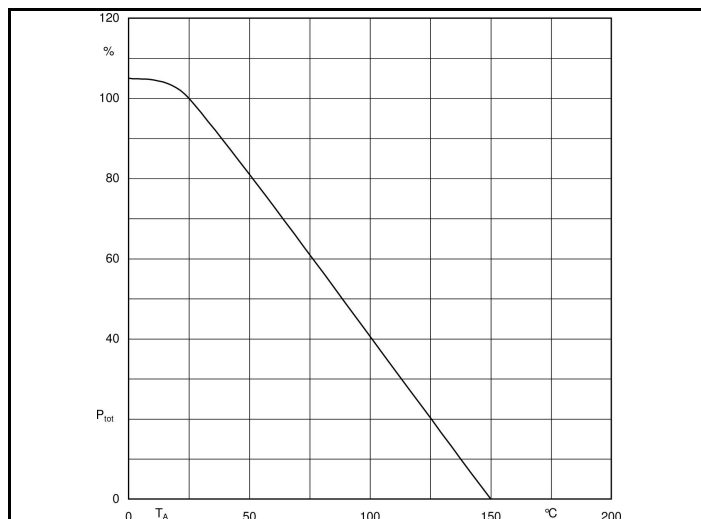


Fig. 2 Rated power dissipation vs. amb. temp. <sup>2)</sup>

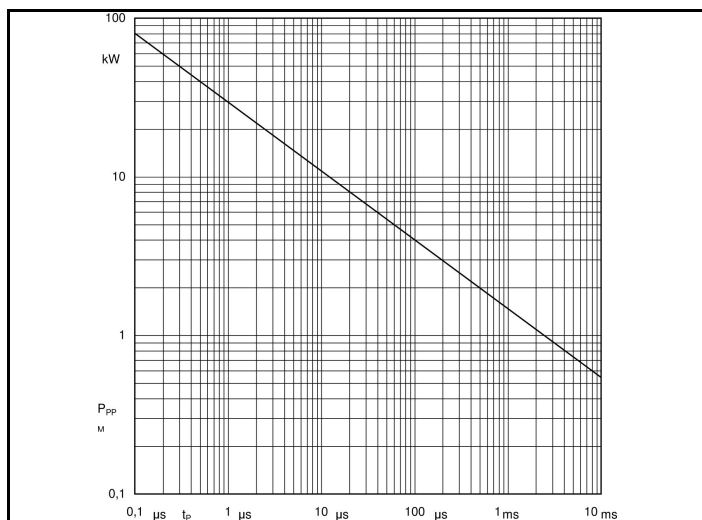


Fig. 3 Peak pulse power versus pulse duration