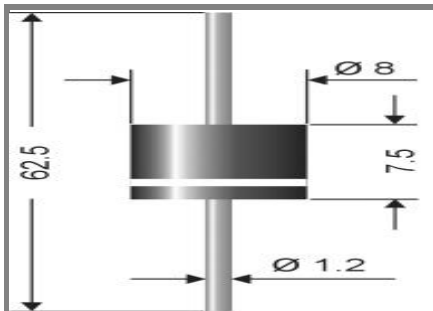


# 3 KP 130 ... 3 KP 180CA



**Axial lead diode**

## Unidirectional and bidirectional Transient Voltage Suppressor diodes

3 KP 130 ... 3 KP 180CA

**Pulse Power Dissipation: 3000 W**

**Maximum Stand-off voltage: 130 ... 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 ±10%. Suffix "A" denotes a tolerance of ±5% for the breakdown voltage.

### Mechanical Data

- Plastic case: 8 x 7,5 [mm] / P-600 Style
- Weight approx.: 1,5 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 500 pieces per ammo

1) Non-repetitive current pulse see curve

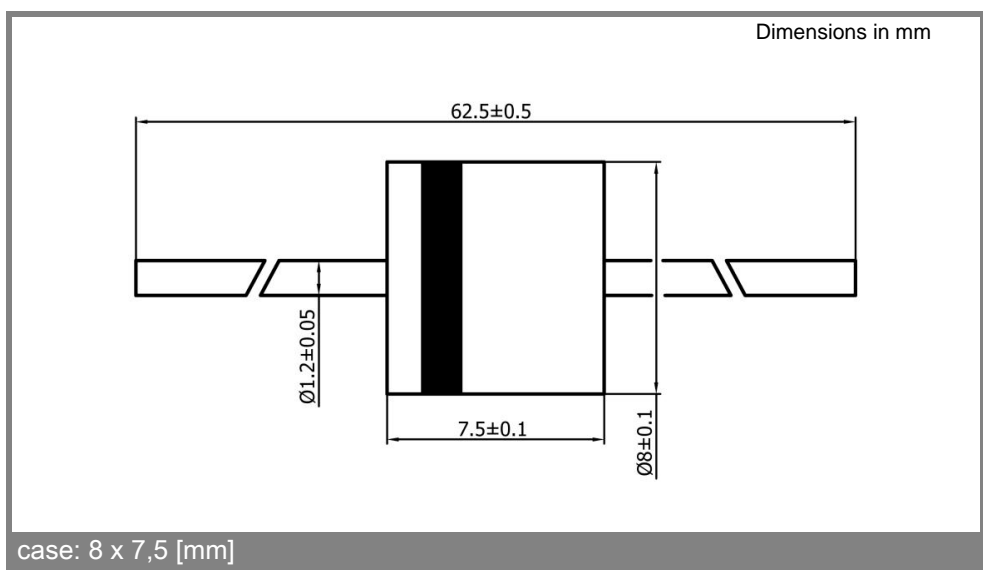
$$I_{PPM} = f(t_p)$$

2) Valid, if leads are kept at ambient temperature at a distance of 10 mm from case

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 $\mu\text{s}$ - pulse waveform, 1) $T_a = 25\text{ °C}$	3000	W
$P_{M(AV)}$	Steady state power dissipation <sup>2)</sup> , $T_a = 25\text{ °C}$	8	W
$I_{FSM}$	Peak forward surge current, 60 Hz half sine-wave, 3) $T_a = 25\text{ °C}$	250	A
$R_{thA}$	Max. thermal resistance junction to ambient <sup>2)</sup>	18	K/W
$R_{thT}$	Max. thermal resistance junction to terminal	4	K/W
$T_j$	Operating junction temperature	- 50 ... + 175	°C
$T_s$	Storage temperature	- 50 ... + 175	°C
$V_f$	Max. instant. forw. voltage $I_f = 100\text{ A}$ 3)	<3,5	V
		-	V

Type	Characteristics						
	Max 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
3 KP 130	130	5	144	176	1	231	13
3 KP 130A	130	5	144	160	1	209	14,4
3 KP 150	150	5	167	204	1	268	11,2
3 KP 150A	150	5	167	185	1	243	12,3
3 KP 160	160	5	178	217,5	1	287	10,5
3 KP 160A	160	5	178	196,7	1	259	11,6
3 KP 170	170	5	189	231	1	304	9,9
3 KP 170A	170	5	189	208,9	1	275	10,9
3 KP 180	180	5	198	242	1	322	9,3
3 KP 180A	180	5	198	218,8	1	292	10,3



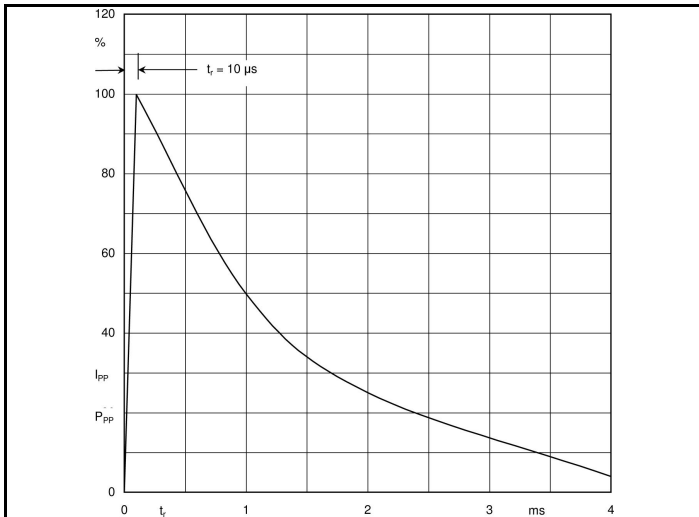


Fig. 1 10/1000 µs - pulse waveform

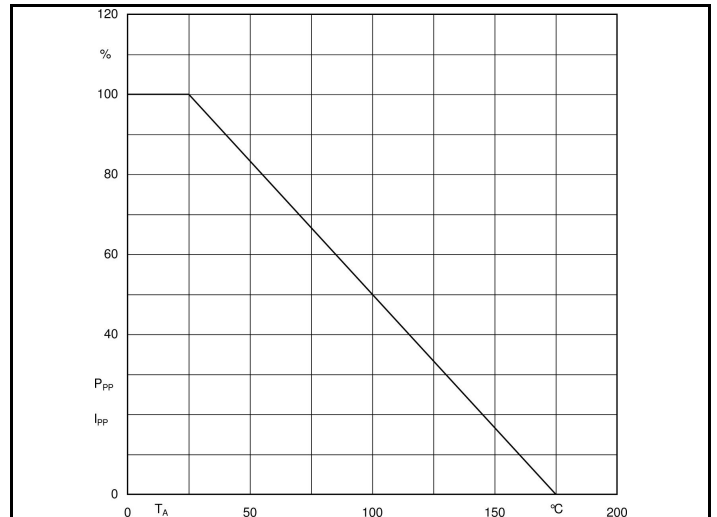


Fig. 2 Peak pulse power/current vs. amb. temperature<sup>2)</sup>

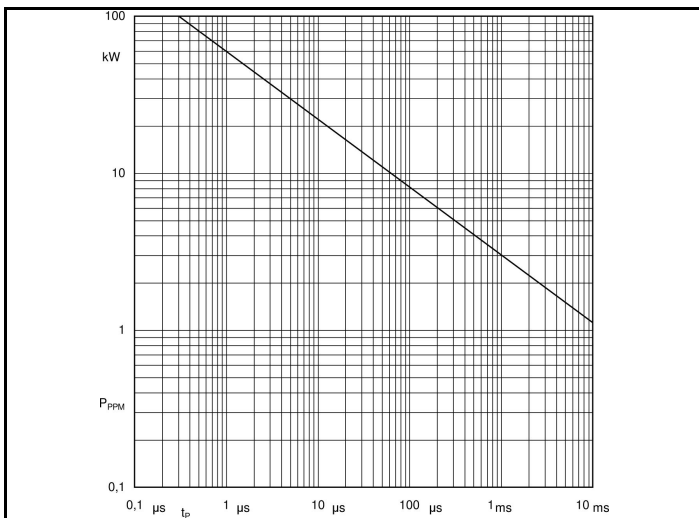


Fig. 3 Peak pulse power versus pulse duration