

Axial lead diode

Unidirectional and bidirectional Transient Voltage Suppressor diodes

P4 KE180...P4 KE440CA

Pulse Power Dissipation: 400 W

Stand-off voltage: 146...376 V

Features

- Max. solder temperature: 260°C
- Plastic material has UL classification 94V-0
- For bidirectional types (suffix "C" or "A"), 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 $\pm 5\%$.

Mechanical Data

- Plastic case DO-15 / DO-204AC
- Weight approx.: 0,4 g
- Terminals: plated terminals solderable per MIL-STD-750
- Mounting position: any
- Standard packaging: 4000 pieces per ammo

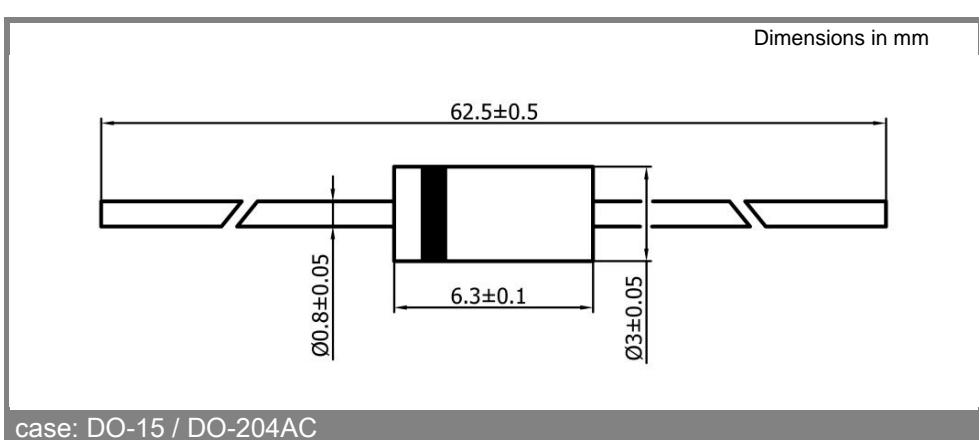
1) Non-repetitive current pulse see curve
 $I_{PPM} = f(t_r)$

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

3) Unidirectional diodes only

Absolute Maximum Ratings		$T_A = 25^\circ C$, unless otherwise specified	
Symbol	Conditions	Values	Units
P_{PPM}	Peak pulse power dissipation 10 / 1000 μs waveform ¹⁾ $T_a = 25^\circ C$	400	W
$P_{M(AV)}$	Steady state power dissipation ²⁾ , $T_a = 25^\circ C$	1	W
I_{FSM}	Peak forward surge current, 60 Hz half sine-wave ³⁾ $T_a = 25^\circ C$	40	A
R_{thA}	Max. thermal resistance junction to ambient ²⁾	45	K/W
R_{thT}	Max. thermal resistance junction to terminal	15	K/W
T_j	Operating junction temperature	- 50 ... + 175	°C
T_s	Storage temperature	- 50 ... + 175	°C
V_f	Max. instant. forw. voltage $I_f = 25 A$ ³⁾	$V_{BR} \leq 200V$, $V_F < 3,0$	V
		$V_{BR} > 200V$, $V_F < 6,5$	V

Type	Characteristics						
	V_{WM} V	I_D μA	Breakdown voltage@ I_T		Test current I_T mA	Max. clamping voltage@ I_{PPM} V	
P4 KE180	146	5	162	198	1	258	1,6
P4 KE180A	154	5	171	189	1	246	1,7
P4 KE200	162	5	180	220	1	287	1,4
P4 KE200A	171	5	190	210	1	274	1,5
P4 KE220	175	5	198	242	1	344	1,2
P4 KE220A	185	5	209	231	1	328	1,3
P4 KE250	202	5	225	275	1	360	1,1
P4 KE250A	214	5	237	263	1	344	1,2
P4 KE300	243	5	270	330	1	430	0,97
P4 KE300A	256	5	285	315	1	414	1
P4 KE350	284	5	315	385	1	504	0,83
P4 KE350A	300	5	332	368	1	482	0,87
P4 KE400	324	5	360	440	1	574	0,73
P4 KE400A	342	5	380	420	1	548	0,76
P4 KE440	356	5	396	484	1	631	0,66
P4 KE440A	376	5	418	462	1	602	0,69



P4 KE180...P4 KE440CA

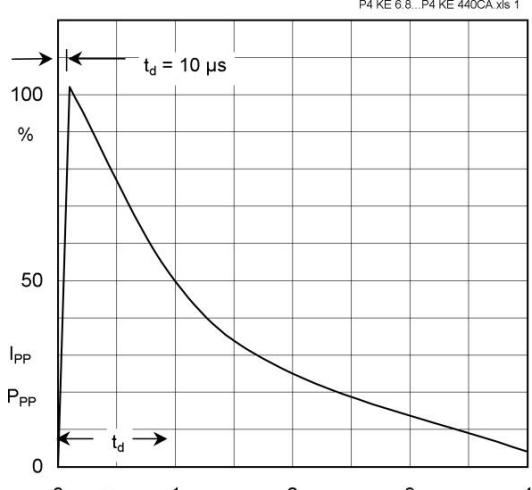


Fig. 1 10/1000 μ s - pulse waveform

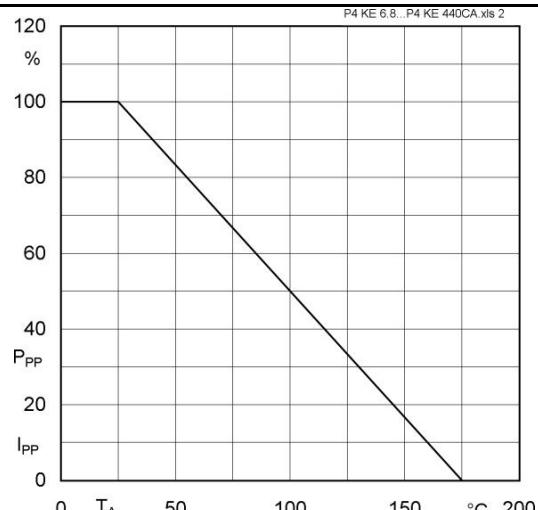


Fig. 2 Peak pulse power or current vs. case temperature²⁾

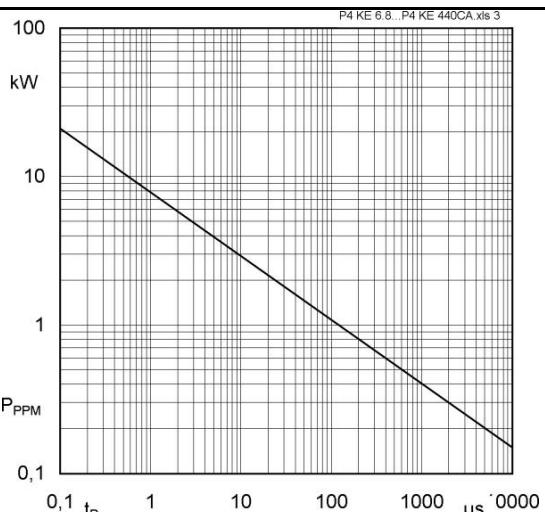


Fig. 3 Peak pulse power versus pulse duration