

P6 KE200...P6 KE440CA, P6 KE520C



Axial lead diode

Unidirectional and bidirectional Transient Voltage Suppressor diodes

P6 KE200...P6 KE440CA, P6 KE520C

Pulse Power

Dissipation: 600 W

Stand-off

voltage: 162 ... 423 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 $\pm 5\%$.

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 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 | | $T_A = 25^\circ\text{C}$, 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⁾ | 30 | K/W |
| R_{thT} | Max. thermal resistance junction to terminal | 15 | K/W |
| T_j | Operating junction temperature | - 50 ... + 175 | $^\circ\text{C}$ |
| T_s | Storage temperature | - 50 ... + 175 | $^\circ\text{C}$ |
| V_f | Max. instant. forw. voltage $I_f = 50\text{ A}$ ³⁾ | $V_{BR} \leq 200\text{V}, V_F < 3,5$ | V |
| | | $V_{BR} > 200\text{V}, V_F < 5,0$ | 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 μA | min. V | max. V | | V_C V | I_{PPM} A |
| P6KE200 | 162 | 5 | 180 | 220 | 1 | 287 | 2,1 |
| P6KE200A | 171 | 5 | 190 | 210 | 1 | 274 | 2,2 |
| P6KE220 | 175 | 5 | 198 | 242 | 1 | 344 | 1,8 |
| P6KE220A | 185 | 5 | 209 | 231 | 1 | 328 | 1,9 |
| P6KE250 | 202 | 5 | 225 | 275 | 1 | 360 | 1,7 |
| P6KE250A | 214 | 5 | 237 | 263 | 1 | 344 | 1,8 |
| P6KE300 | 243 | 5 | 270 | 330 | 1 | 430 | 1,4 |
| P6KE300A | 256 | 5 | 285 | 315 | 1 | 414 | 1,5 |
| P6KE350 | 284 | 5 | 315 | 385 | 1 | 504 | 1,2 |
| P6KE350A | 300 | 5 | 332 | 368 | 1 | 482 | 1,3 |
| P6KE400 | 324 | 5 | 360 | 440 | 1 | 574 | 1 |
| P6KE400A | 342 | 5 | 380 | 420 | 1 | 548 | 1,1 |
| P6KE440 | 356 | 5 | 396 | 484 | 1 | 631 | 0,99 |
| P6KE440A | 376 | 5 | 418 | 462 | 1 | 602 | 1,04 |
| P6KE520C | 423 | 5 | 470 | 570 | 1 | 745 | 0,81 |



