

Features

- ◆ Optimized for LAN protection applications
- ◆ Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- ◆ 400w peak pulse power capability
- ◆ Excellent clamping capability
- ◆ Low incremental surge resistance
- ◆ Fast response time: typically less than 1.0ps from 0v to V_{BRmin}
- ◆ High temperature soldering guaranteed:
260°C/10S at terminals

Mechanical Data

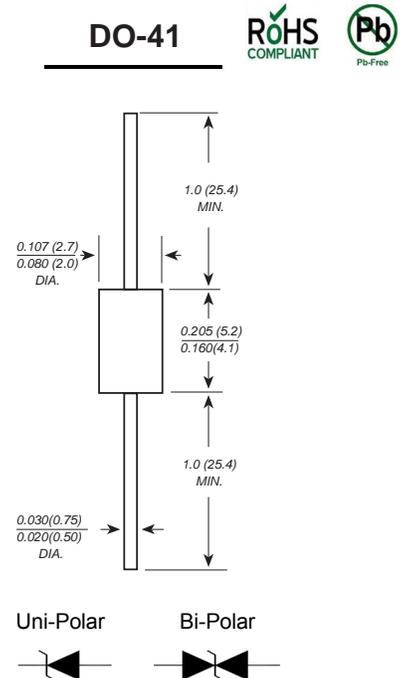
Case : Molded plastic body

Terminals : Solder plated, solderable per MIL-STD-750, Method 2026

Polarity : Polarity symbol marking on body

Mounting Position : Any

Weight : 0.0088 ounce, 0.25 grams



Dimensions in inches and (millimeters)

Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	SYMBOLS	VALUE	UNITS
Peak pulse power dissipation with a 10/1000μs wavetorm(NOTE 1,2,4,FIG.1)	P_{PPM}	Minimum 400	Watts
Peak forward surge current (Note 3)	I_{FSM}	40.0	Amps
Peak pulse current with a 10/1000μs waveform(NOTE 1,2,5)Fig.2	I_{PPM}	See Table 1	Amps
Steady State Power Dissipation(Note 4)	$P_{M(AV)}$	1.0	Watts
Operating junction and storage temperature range	T_{STG}, T_J	-55 to + 150	°C

Notes:1.Non-repetitive current pulse,per Fig.3 and derated above $T_A=25^\circ\text{C}$ per Fig.2

2.Mounted on 5.0mm copper pads to each terminal

3.Measured on 8.3ms single half sine-wine.For uni-directional devices only.

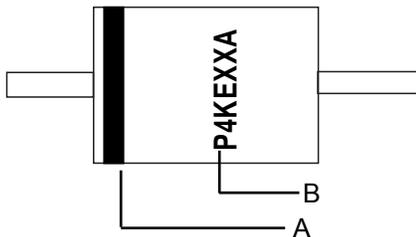
4.Lead temperature at $75^\circ\text{C}=T_L$

5.Peak pulse power waveform is 10/1000μs

Type		Peak Pulse Power	Stand-off Voltage	Maximum Reverse Current at VR	Breakdown Voltage at IT		Test Current	Maximum Peak Pulse Current	Maximum Clamping Voltage at Ipp
Uni-Polar	Bi-Polar	PPP	V(R)	IR	V (BR) (V)		IT	Ipp	Vc
		(W)	(V)	(uA)	Min.	Max.			
P4KE6.8A	P4KE6.8CA	400	5.8	1000	6.45	7.14	10	38.1	10.5
P4KE7.5A	P4KE7.5CA	400	6.4	500	7.13	7.88	10	35.4	11.3
P4KE8.2A	P4KE8.2CA	400	7.0	200	7.79	8.61	10	33.1	12.1
P4KE9.1A	P4KE9.1CA	400	7.8	50	8.65	9.55	1	29.9	13.4
P4KE10A	P4KE10CA	400	8.6	10	9.5	10.5	1	27.6	14.5
P4KE11A	P4KE11CA	400	9.4	5	10.5	11.6	1	25.6	15.6
P4KE12A	P4KE12CA	400	10.2	5	11.4	12.6	1	24	16.7
P4KE13A	P4KE13CA	400	11.1	5	12.4	13.7	1	22	18.2
P4KE15A	P4KE15CA	400	12.8	5	14.3	15.8	1	18.9	21.2
P4KE16A	P4KE16CA	400	13.6	5	15.2	16.8	1	17.8	22.5
P4KE18A	P4KE18CA	400	15.3	5	17.1	18.9	1	15.9	25.5
P4KE20A	P4KE20CA	400	17.1	5	19	21	1	14.4	27.7
P4KE22A	P4KE22CA	400	18.8	5	20.9	23.1	1	13.1	30.6
P4KE24A	P4KE24CA	400	20.5	5	22.8	25.2	1	12	33.2
P4KE27A	P4KE27CA	400	23.1	5	25.7	28.4	1	10.7	37.5
P4KE30A	P4KE30CA	400	25.6	5	28.5	31.5	1	9.7	41.4
P4KE33A	P4KE33CA	400	28.2	5	31.4	34.7	1	8.8	45.7
P4KE36A	P4KE36CA	400	30.8	5	34.2	37.8	1	8	49.9
P4KE39A	P4KE39CA	400	33.3	5	37.1	41	1	7.4	53.9
P4KE43A	P4KE43CA	400	36.8	5	40.9	45.2	1	6.7	59.3
P4KE47A	P4KE47CA	400	40.2	5	44.7	49.4	1	6.2	64.8
P4KE51A	P4KE51CA	400	43.6	5	48.5	53.6	1	5.7	70.1
P4KE56A	P4KE56CA	400	47.8	5	53.2	58.8	1	5.2	77
P4KE62A	P4KE62CA	400	53	5	58.9	65.1	1	4.7	85
P4KE68A	P4KE68CA	400	58.1	5	64.6	71.4	1	4.3	92
P4KE75A	P4KE75CA	400	64.1	5	71.3	78.8	1	3.9	103
P4KE82A	P4KE82CA	400	70.1	5	77.9	86.1	1	3.5	113
P4KE91A	P4KE91CA	400	77.8	5	86.5	95.5	1	3.2	125
P4KE100A	P4KE100CA	400	85.5	5	95	105	1	2.9	137
P4KE110A	P4KE110CA	400	94	5	105	116	1	2.6	152
P4KE120A	P4KE120CA	400	102	5	114	126	1	2.4	165
P4KE130A	P4KE130CA	400	111	5	124	137	1	2.2	179
P4KE150A	P4KE150CA	400	128	5	143	158	1	1.9	207
P4KE160A	P4KE160CA	400	136	5	152	168	1	1.8	219
P4KE170A	P4KE170CA	400	145	5	162	179	1	1.7	234
P4KE180A	P4KE180CA	400	154	5	171	189	1	1.6	246

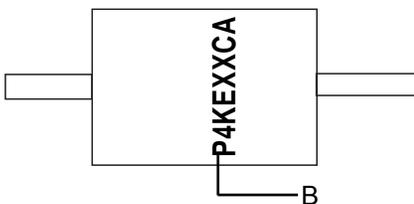
Type		Peak Pulse Power	Stand-off Voltage	Maximum Reverse Current at VR	Breakdown Voltage at IT		Test Current	Maximum Peak Pulse Current	Maximum Clamping Voltage at Ipp
Uni-Polar	Bi-Polar	PPP	V(R)	IR	V (BR) (V)		IT	Ipp	Vc
		(W)	(V)	(uA)	Min.	Max.			
P4KE200A	P4KE200CA	400	171	5	190	210	1	1.5	274
P4KE220A	P4KE220CA	400	185	5	209	231	1	1.2	328
P4KE250A	P4KE250CA	400	214	5	237	267	1	1.2	344
P4KE300A	P4KE300CA	400	256	5	285	315	1	1.0	414
P4KE350A	P4KE350CA	400	300	5	332	368	1	0.83	482
P4KE400A	P4KE400CA	400	342	5	380	420	1	0.7	548
P4KE440A	P4KE440CA	400	376	5	418	462	1	0.7	602

Marking For Uni-Polar



Symbol	Explanation
A	Color Band Denotes Cathode
B	Product Name

Marking For Bi-Polar



Symbol	Explanation
B	Product Name

Ratings And Characteristic Curves

Fig.1 Peak Pulse Power Rating Curve

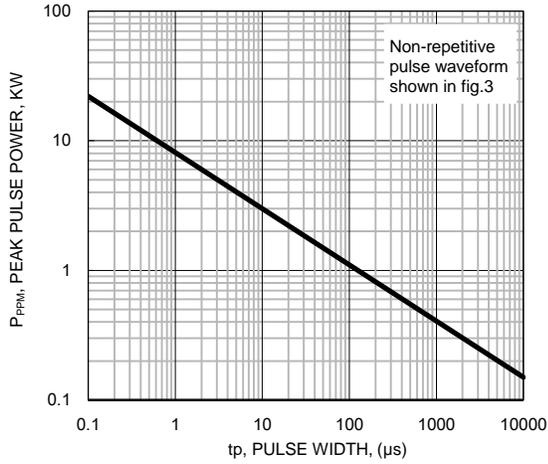


Fig.2 Pulse Derating Curve

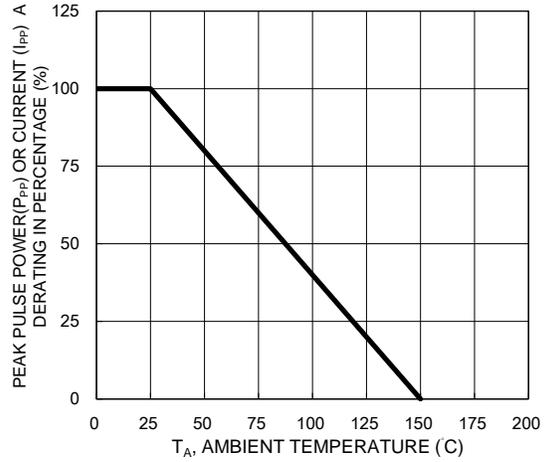


Fig.3 Claming Power Pulse Waveform

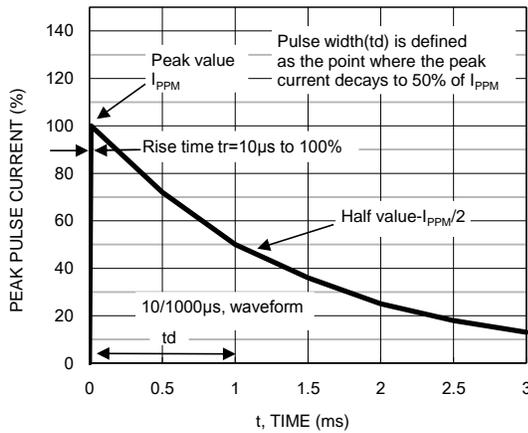


Fig.4 Maximum Non-repetitive Forward Surge Current

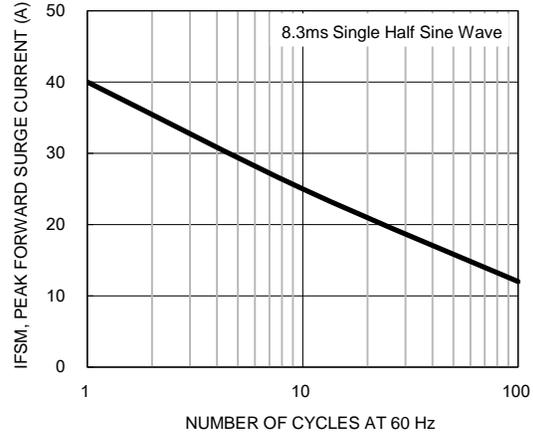
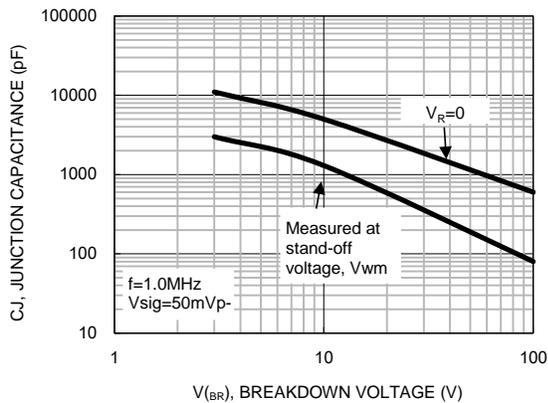
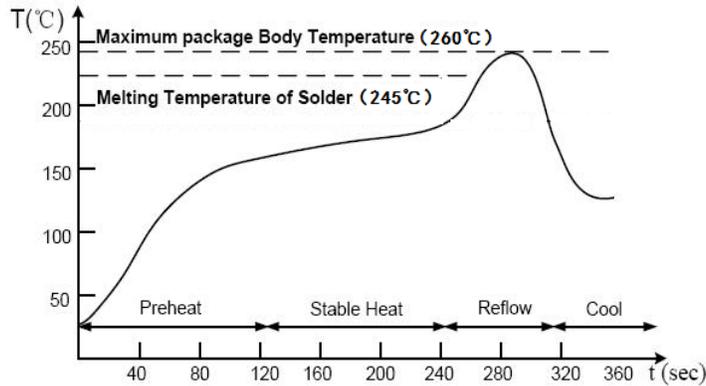


Fig.5 Typical Junction Capacitance



Suggested Soldering Temperature Profile

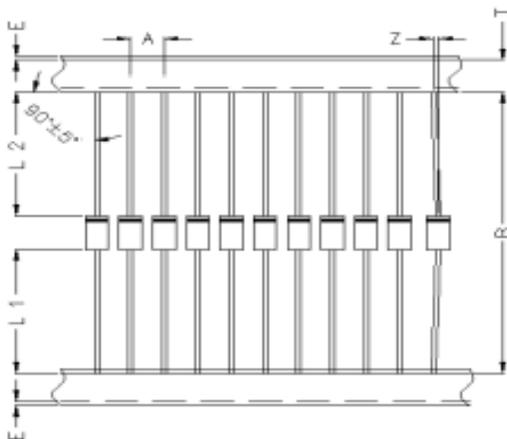


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 260°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Taping Specifications



Item	Symbol	Specifications(mm)
Component Pitch	A	5.0±0.5
Inner Tape Pitch	B	52.4±1.5
Component alignment	Z	1.2 Max
Tape width	T	6.0±0.5
Exposed adhesive	E	0.8 Max
Body eccentricity	L1-L2	1.0 Max

Ammunition Package Specifications

Package	Inner Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
DO - 41	255*150*75	5	420*276*312	50