

Transient Voltage Suressor

Working Peak Reverse Voltage: 6.8 to 600 Volts

Power Dissipation: 400Watts

RoHS Device

Halogen Free

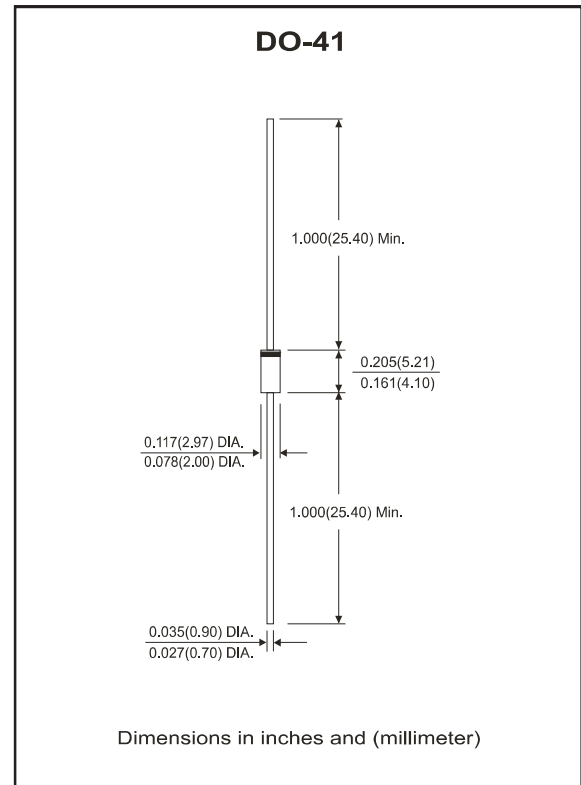


Features

- Glass passivated chip.
- 400W peak pulse power capability with a 10/1000us waveform, repetitive rate (duty cycle):0.01%
- Low leakage.
- Uni and Bidirectional unit.
- Excellent clamping capability.
- Very fast response time.

Mechanical Data

- Case: Molded plastic, DO-41
- Epoxy: UL 94V-0 rate flame retardant.
- Lead: Solderable per MIL-STD-202, method 208 guaranteed.
- Polarity: Color band denotes cathode end except bipolar.
- Monuting position: Any.
- Weight: 0.321 grams(approx.)



Maximum Ratings (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Peak power dissipation with a 10/1000μs waveform (Note 1)	P _{PP}	400	W
Peak pulse current with a 10/1000μs waveform (Note 1)	I _{PP}	See Next Table	A
Power dissipation on infinite heatsink at T _L =75°C	P _D	1.0	W
Peak forward surge current, 8.3ms single half sine-wave unidirectional only (Note 2)	I _{FSM}	40	A
Maximum instantaneous forward voltage at 25 A for unidirectional only (Note 3)	V _F	3.5/5.0	V
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

NTOES:

(1) Non-repetitive current pulse per fig.5 and derated above TA=25°C per fig.1

(2) Measured on 8.3ms single half sine-wave or equivalent square wave, duty cycle=4 pulses per minute maximum

(3) V_F<3.5V for devices of V_{BR}<200V and V_F<5.0V for devices of V_{BR}>201V

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Electrical Characteristics (at TA=25°C, unless otherwise specified)

Part No.	Breakdown voltage VBR @ IT			Maximum Reverse Leakage @VRWM IR (uA)	Working Peak Reverse Voltage VRWM (V)	Maximum Reverse Surge Current IPP (A)	Maximum Clamping Voltage @IPP VC (V)	Marking Code	
	Min. (V)	Max. (V)	IT (mA)					UNI	BI
P4KE6.8(C)A	6.46	7.14	10	1000	5.8	38.10	10.5	P4KE6.8A	P4KE6.8CA
P4KE7.5(C)A	7.13	7.88	10	500	6.4	35.40	11.3	P4KE7.5A	P4KE7.5CA
P4KE8.2(C)A	7.79	8.61	10	200	7.0	33.06	12.1	P4KE8.2A	P4KE8.2CA
P4KE9.1(C)A	8.65	9.56	1	50	7.8	29.85	13.4	P4KE9.1A	P4KE9.1CA
P4KE10(C)A	9.50	10.50	1	10	8.6	27.59	14.5	P4KE10A	P4KE10CA
P4KE11(C)A	10.45	11.55	1	5.0	9.4	25.64	15.6	P4KE11A	P4KE11CA
P4KE12(C)A	11.40	12.60	1	5.0	10.2	23.95	16.7	P4KE12A	P4KE12CA
P4KE13(C)A	12.35	13.65	1	1	11.1	21.98	18.2	P4KE13A	P4KE13CA
P4KE15(C)A	14.25	15.75	1	1	12.8	18.87	21.2	P4KE15A	P4KE15CA
P4KE16(C)A	15.20	16.80	1	1	13.6	17.78	22.5	P4KE16A	P4KE16CA
P4KE18(C)A	17.10	18.90	1	1	15.3	15.87	25.2	P4KE18A	P4KE18CA
P4KE20(C)A	19.00	21.00	1	1	17.1	14.44	27.7	P4KE20A	P4KE20CA
P4KE22(C)A	20.90	23.10	1	1	18.8	13.07	30.6	P4KE22A	P4KE22CA
P4KE24(C)A	22.80	25.20	1	1	20.5	12.05	33.2	P4KE24A	P4KE24CA
P4KE27(C)A	25.65	28.35	1	1	23.1	10.67	37.5	P4KE27A	P4KE27CA
P4KE30(C)A	28.50	31.50	1	1	25.6	9.66	41.4	P4KE30A	P4KE30CA
P4KE33(C)A	31.35	34.65	1	1	28.2	8.75	45.7	P4KE33A	P4KE33CA
P4KE36(C)A	34.20	37.80	1	1	30.8	8.02	49.9	P4KE36A	P4KE36CA
P4KE39(C)A	37.05	40.95	1	1	33.3	7.42	53.9	P4KE39A	P4KE39CA
P4KE43(C)A	40.85	45.15	1	1	36.8	6.75	59.3	P4KE43A	P4KE43CA
P4KE47(C)A	44.65	49.35	1	1	40.2	6.17	64.8	P4KE47A	P4KE47CA
P4KE51(C)A	48.45	53.55	1	1	43.6	5.71	70.1	P4KE51A	P4KE51CA
P4KE56(C)A	53.20	58.80	1	1	47.8	5.19	77.0	P4KE56A	P4KE56CA
P4KE62(C)A	58.90	65.10	1	1	53.0	4.71	85.0	P4KE62A	P4KE62CA
P4KE68(C)A	64.60	71.40	1	1	58.1	4.35	92.0	P4KE68A	P4KE68CA
P4KE75(C)A	71.25	78.75	1	1	64.1	3.88	103.0	P4KE75A	P4KE75CA
P4KE82(C)A	77.90	86.10	1	1	70.1	3.54	113.0	P4KE82A	P4KE82CA
P4KE91(C)A	86.45	95.55	1	1	77.8	3.20	125.0	P4KE91A	P4KE91CA
P4KE100(C)A	95.00	105.00	1	1	85.5	2.92	137.0	P4KE100A	P4KE100CA
P4KE110(C)A	104.50	115.50	1	1	94.0	2.63	152.0	P4KE110A	P4KE110CA
P4KE120(C)A	114.00	126.00	1	1	102.0	2.42	165.0	P4KE120A	P4KE120CA
P4KE130(C)A	123.50	136.50	1	1	111.0	2.23	179.0	P4KE130A	P4KE130CA
P4KE150(C)A	142.50	157.50	1	1	128.0	1.93	207.0	P4KE150A	P4KE150CA
P4KE160(C)A	152.00	168.00	1	1	136.0	1.83	219.0	P4KE160A	P4KE160CA
P4KE170(C)A	161.50	178.50	1	1	145.0	1.71	234.0	P4KE170A	P4KE170CA
P4KE180(C)A	171.00	189.00	1	1	154.0	1.63	246.0	P4KE180A	P4KE180CA
P4KE200(C)A	190.00	210.00	1	1	171.0	1.46	274.0	P4KE200A	P4KE200CA
P4KE220(C)A	209.00	231.00	1	1	185.0	1.22	328.0	P4KE220A	P4KE220CA
P4KE250(C)A	237.50	262.50	1	1	214.0	1.16	344.0	P4KE250A	P4KE250CA
P4KE300(C)A	285.00	315.00	1	1	256.0	0.97	414.0	P4KE300A	P4KE300CA
P4KE350(C)A	332.50	367.50	1	1	299.3	0.83	482.0	P4KE350A	P4KE350CA
P4KE380(C)A	361.00	399.00	1	1	324.9	0.76	524.4	P4KE380A	P4KE380CA
P4KE400(C)A	380.00	420.00	1	1	342.0	0.72	552.0	P4KE400A	P4KE400CA
P4KE440(C)A	418.00	462.00	1	1	376.2	0.66	607.2	P4KE440A	P4KE440CA
P4KE500(C)A	475.00	525.00	1	1	427.5	0.58	690.0	P4KE500A	P4KE500CA
P4KE520(C)A	494.00	546.00	1	1	444.6	0.56	717.6	P4KE520A	P4KE520CA
P4KE550(C)A	522.50	577.50	1	1	470.3	0.53	759.0	P4KE550A	P4KE550CA
P4KE600(C)A	570.00	630.00	1	1	513.0	0.48	828.0	P4KE600A	P4KE600CA

Note: 1) Suffix A denotes 5% tolerance devices.

2) Add suffix "C" or "CA" after part number to specify Bi-directional devices.

3) For Bi-Directional devices having VR of 10 volts and under, the IR limit is double.

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Rating and Characteristic Curves

Fig.1 - Pulse Derating Curve

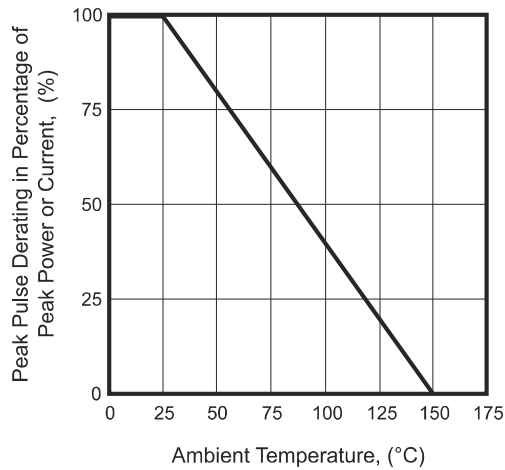


Fig.2 - Maximum Non-Repetitive Surge Current

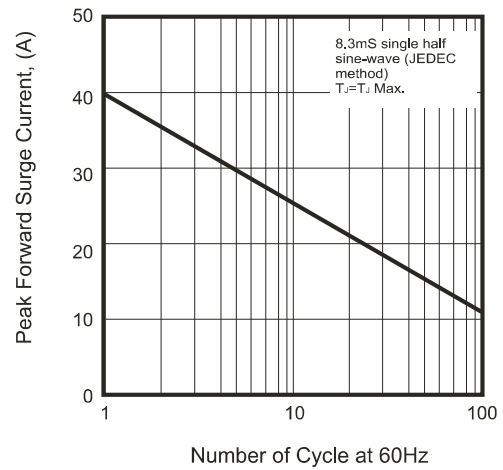


Fig.3 - Steady State Power Derating Curve

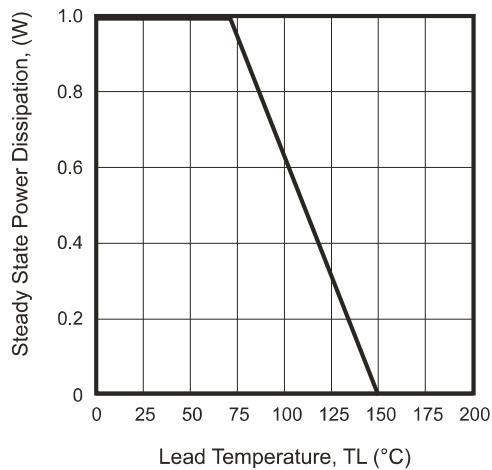


Fig.4 - Peak Pulse Power Rating Curve

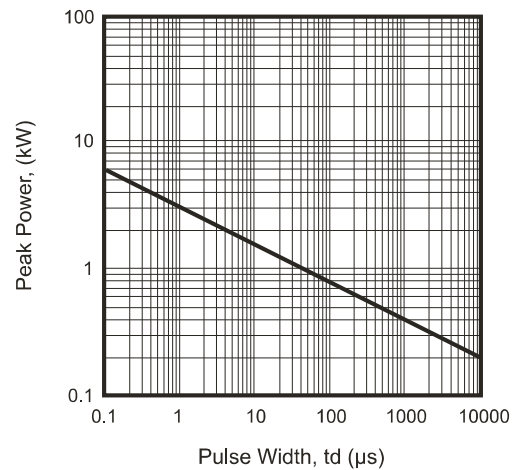


Fig.5 - Pulse Waveform

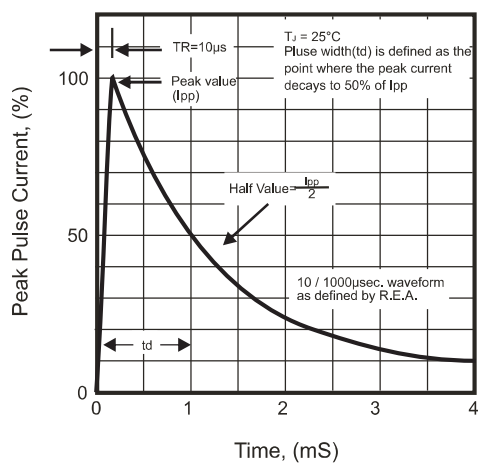
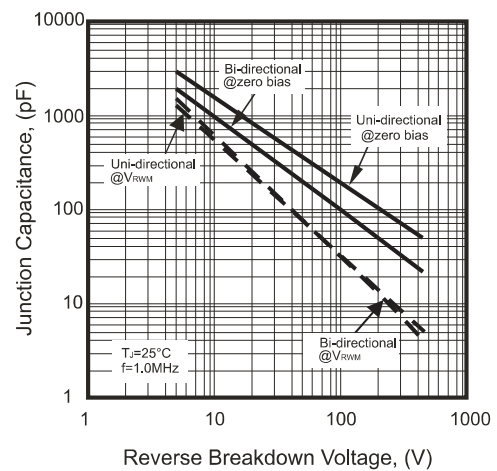
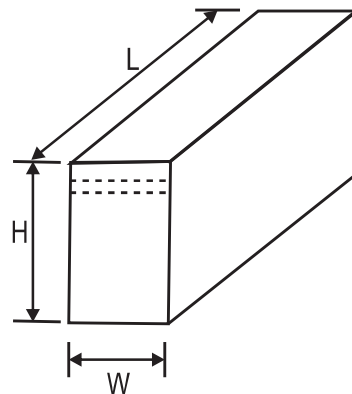
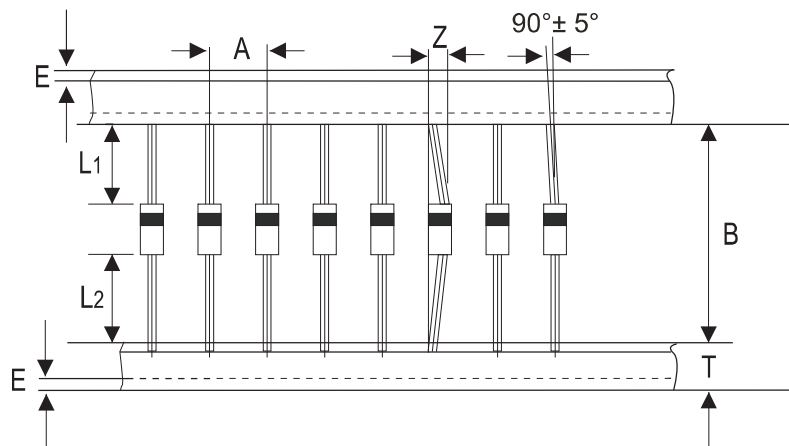


Fig.6 - Typical Junction Capacitance



Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E
	(mm)	5.00 ± 0.50	52.40 ± 1.50	1.60 (max)	6.00 ± 0.40	3.00 (max)
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.063 (max)	0.236 ± 0.016	0.118 (max)

DO-41	SYMBOL	$ L_1 - L_2 $	L	W	H
	(mm)	1.00 (max)	260 ± 5.00	75 ± 5.00	145 ± 5.00
	(inch)	0.039 (max)	10.236 ± 0.197	2.953 ± 0.197	5.709 ± 0.197

Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	CARTON (pcs)
DO-41	5,000	50,000