

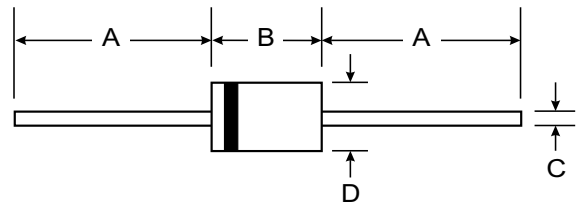
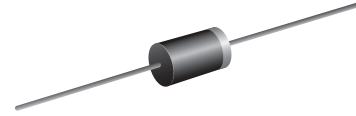
VOLTAGE RANGE: 5.0 - 440 V
POWER: 500 Watts

Features

- Glass Passivated Die Construction
- Uni- and Bi-Directional Versions Available
- Excellent Clamping Capability
- Fast Response Time
- Plastic Case Material has UL Flammability

Mechanical Data

- Case: DO-15
- Terminals: Axial Leads, Solderable per MIL-STD-750, Method 2026
- Polarity: Cathode Band or Cathode Notch
- Marking:
 Unidirectional – Device Code and Cathode Band
 Bidirectional – Device Code Only
- Weight: 0.40 grams (approx.)



DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
All Dimensions in mm		

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	Value	Unit
Peak Pulse Power Dissipation at $T_A = 25^\circ\text{C}$ (Note 1, 2, 5) Figure 3	PPPM	500 Minimum	W
Peak Forward Surge Current (Note 3)	I_{FSM}	70	A
Peak Pulse Current on 10/1000 μS Waveform (Note 1) Figure 1	I_{PPM}	See Table 1	A
Steady State Power Dissipation (Note 2, 4)	$P_{M(AV)}$	1.0	W
Operating and Storage Temperature Range	T_j, T_{STG}	-65 to +175	$^\circ\text{C}$

- Note: 1. Non-repetitive current pulse, per Figure 1 and derated above $T_A = 25^\circ\text{C}$ per Figure 4.
 2. Mounted on 40mm² copper pad.
 3. 8.3ms single half sine-wave duty cycle = 4 pulses per minutes maximum.
 4. Lead temperature at $75^\circ\text{C} = T_L$.
 5. Peak pulse power waveform is 10/1000 μS .

TYPE		Reverse Stand- Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @ I _{PP}	Peak Pulse Current	Reverse Leakage @ V _{RWM}
(UNI)	(BI)	V _{RWM} (V)	V _{BR} MIN(V)	V _{BR} MAX(V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (μ A)
SA5.0A	SA5.0CA	5.0	6.40	7.25	10	9.2	55.4	600.0
SA6.0A	SA6.0CA	6.0	6.67	7.67	10	10.3	49.5	600.0
SA6.5A	SA6.5CA	6.5	7.22	8.30	10	11.2	45.5	400.0
SA7.0A	SA7.0CA	7.0	7.78	8.95	10	12.0	42.5	150.0
SA7.5A	SA7.5CA	7.5	8.33	9.58	1.0	12.9	39.5	50.0
SA8.0A	SA8.0CA	8.0	8.89	10.23	1.0	13.6	37.5	25.0
SA8.5A	SA8.5CA	8.5	9.44	10.82	1.0	14.4	35.4	10.0
SA9.0A	SA9.0CA	9.0	10.0	11.5	1.0	15.4	33.1	5.0
SA10A	SA10CA	10	11.1	12.8	1.0	17.0	30.0	3.0
SA11A	SA11CA	11	12.2	14.0	1.0	18.2	28.0	3.0
SA12A	SA12CA	12	13.3	15.3	1.0	19.9	25.6	3.0
SA13A	SA13CA	13	14.4	16.5	1.0	21.5	23.7	3.0
SA14A	SA14CA	14	15.6	17.9	1.0	23.2	22.0	3.0
SA15A	SA15CA	15	16.7	19.2	1.0	24.4	20.9	3.0
SA16A	SA16CA	16	17.8	20.5	1.0	26.0	19.6	3.0
SA17A	SA17CA	17	18.9	21.7	1.0	27.6	18.5	3.0
SA18A	SA18CA	18	20.0	23.3	1.0	29.2	17.5	3.0
SA20A	SA20CA	20	22.2	25.5	1.0	32.4	15.7	3.0
SA22A	SA22CA	22	24.4	26.9	1.0	35.5	14.4	3.0
SA24A	SA24CA	24	26.7	29.5	1.0	38.9	13.1	3.0
SA26A	SA26CA	26	28.9	31.9	1.0	42.1	12.1	3.0
SA28A	SA28CA	28	31.1	34.4	1.0	45.4	11.2	3.0
SA30A	SA30CA	30	33.3	36.8	1.0	48.4	10.5	3.0
SA33A	SA33CA	33	36.7	40.6	1.0	53.3	9.6	3.0
SA36A	SA36CA	36	40.0	44.2	1.0	58.1	8.8	3.0
SA40A	SA40CA	40	44.4	49.1	1.0	64.5	7.9	3.0
SA43A	SA43CA	43	47.8	52.8	1.0	69.4	7.3	3.0
SA45A	SA45CA	45	50.0	55.3	1.0	72.7	7.0	3.0
SA48A	SA48CA	48	53.3	58.9	1.0	77.4	6.6	3.0
SA51A	SA51CA	51	56.7	62.7	1.0	82.4	6.2	3.0
SA54A	SA54CA	54	60.0	66.3	1.0	87.1	5.9	3.0
SA58A	SA58CA	58	64.4	71.2	1.0	93.6	5.4	3.0
SA60A	SA60CA	60	66.7	73.7	1.0	96.8	5.3	3.0

TYPE		Reverse Stand- Off Voltage	Breakdown Voltage Min. @I _T	Breakdown Voltage Max. @ I _T	Test Current	Maximum Clamping Voltage @I _{PP}	Peak Pulse Current	Reverse Leakage @V _{RWM}
(UNI)	(BI)	V _{RWM} (V)	V _{BR MIN} (V)	V _{BR MAX} (V)	I _T (mA)	V _C (V)	I _{PP} (A)	I _R (uA)
SA64A	SA64CA	64	71.1	78.6	1.0	103	5.0	3.0
SA70A	SA70CA	70	77.8	86.0	1.0	113	4.5	3.0
SA75A	SA75CA	75	83.0	92.1	1.0	121	4.2	3.0
SA78A	SA78CA	78	86.0	95.8	1.0	126	4.0	3.0
SA85A	SA85CA	85	94.0	104	1.0	137	3.7	3.0
SA90A	SA90CA	90	100	111	1.0	146	3.3	3.0
SA100A	SA100CA	100	111	123	1.0	162	3.1	3.0
SA110A	SA110CA	110	122	135	1.0	177	2.9	3.0
SA120A	SA120CA	120	133	147	1.0	193	2.6	3.0
SA130A	SA130CA	130	144	159	1.0	209	2.4	3.0
SA150A	SA150CA	150	167	185	1.0	243	2.1	3.0
SA160A	SA160CA	160	178	197	1.0	259	2.0	3.0
SA170A	SA170CA	170	189	209	1.0	275	1.9	3.0
SA180A	SA180CA	180	200	221	1.0	290	1.73	3.0
SA190A	SA190CA	190	211	233	1.0	306	1.64	3.0
SA200A	SA200CA	200	222	245	1.0	322	1.56	3.0
SA220A	SA220CA	220	244	270	1.0	355	1.42	3.0
SA250A	SA250CA	250	278	307	1.0	403	1.25	3.0
SA300A	SA300CA	300	333	368	1.0	484	1.04	3.0
SA350A	SA350CA	350	389	430	1.0	565	0.89	3.0
SA400A	SA400CA	400	444	491	1.0	645	0.79	3.0
SA440A	SA440CA	440	489	540	1.0	710	0.71	3.0

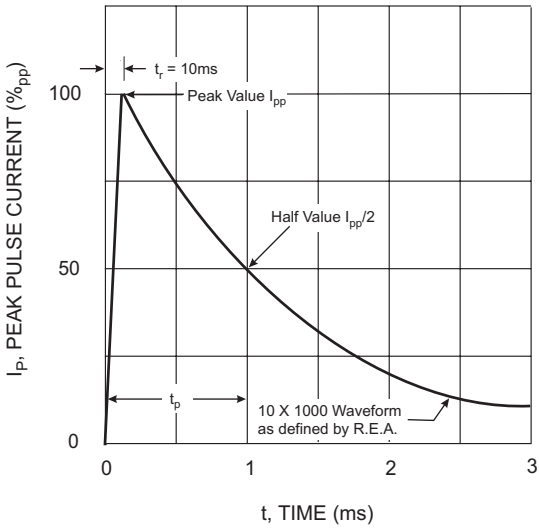


Fig. 1 Pulse Waveform

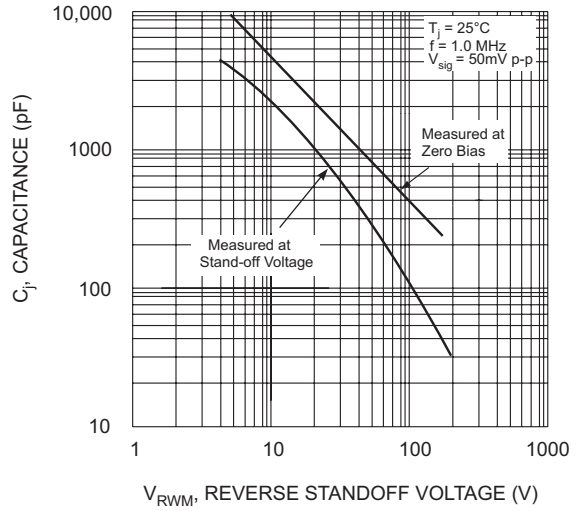


Fig. 2 Typical Junction Capacitance

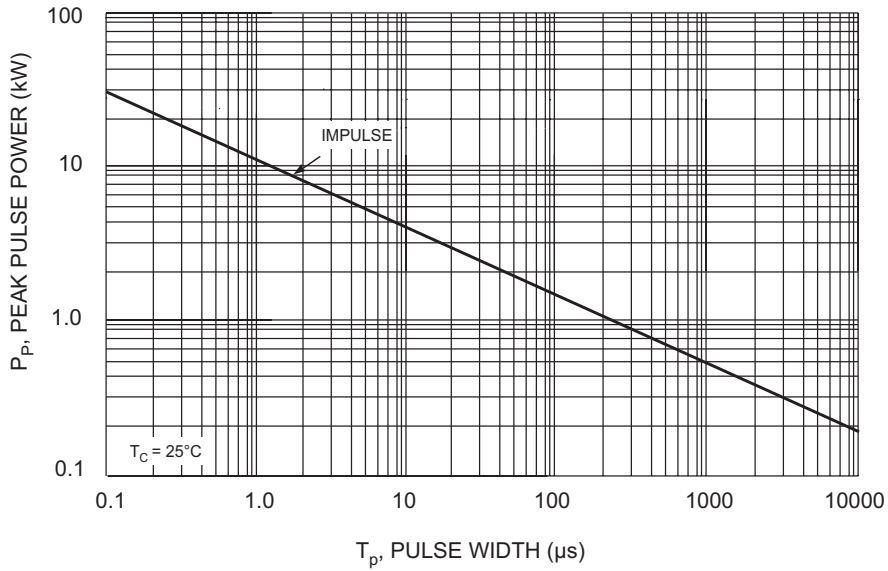


Fig. 3 Pulse Rating Curve

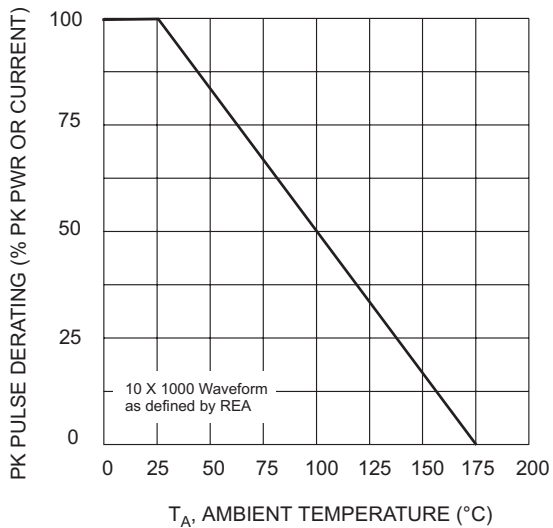


Fig. 4 Pulse Derating Curve

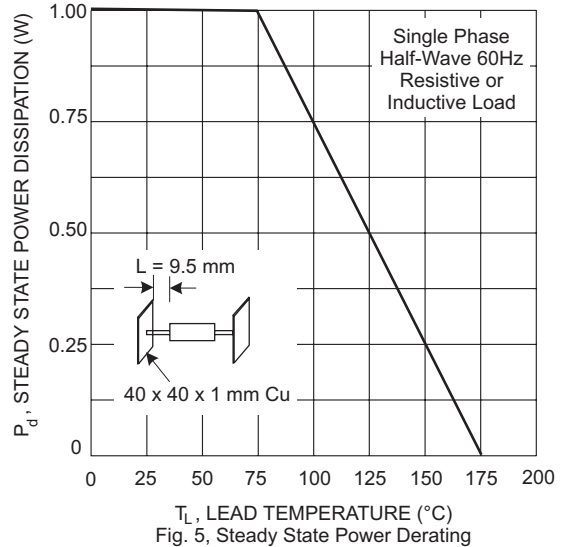


Fig. 5, Steady State Power Derating