



8700 E. Thomas Road
Scottsdale, AZ 85251
Tel: (480) 941-6300
Fax: (480) 947-1503

FLIP CHIP TVS DIODES
CHF5KP5.0
thru
CHF5KP110CA
Patented Flip Chip Series

FEATURES

- Unidirectional and bidirectional
- Fully glass passivated
- 5000 watt (10/1000 μ s)
- Eliminates wire bonding
- No overshoot
- Provides optimum voltage clamping

MAXIMUM RATINGS MECHANICAL

- Max Junction Temperature: 175°C
- Storage Temperature: -55°C to +175°C
- Flip Chip Peak Pulse Power: 5000 Watts (10/1000 μ s)
- Maximum non-repetitive peak power 5000 Watts (10/1000 μ s)
- Total continuous power dissipation @ $T_{lead} = 75^{\circ}\text{C}$ 10 W
- Turn-on time (theoretical) unidirectional 1×10^{-12}
- Turn-on time (theoretical) bidirectional 1×10^{-9}

MECHANICAL

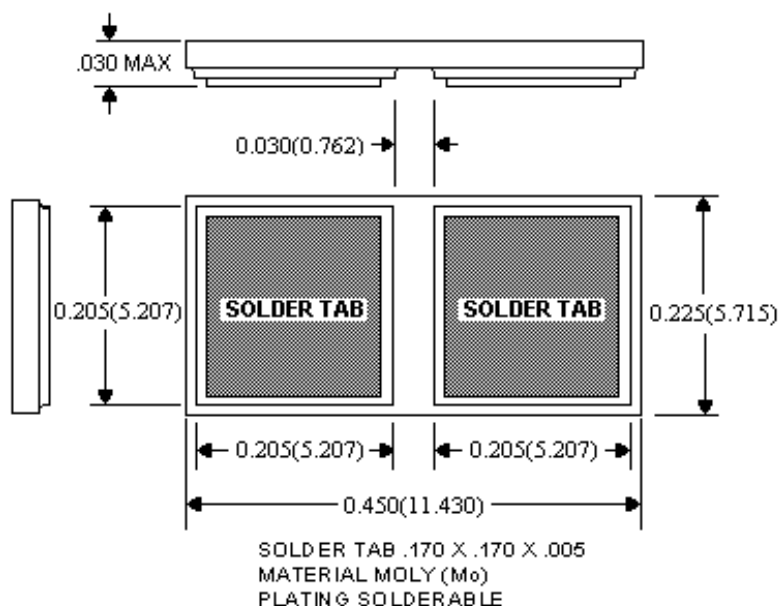
- Weight: 0.8 grams (approximate)
- Cathode mark on top side
- Metallization Cr - Ag - Au (Both Sides)

PACKAGING

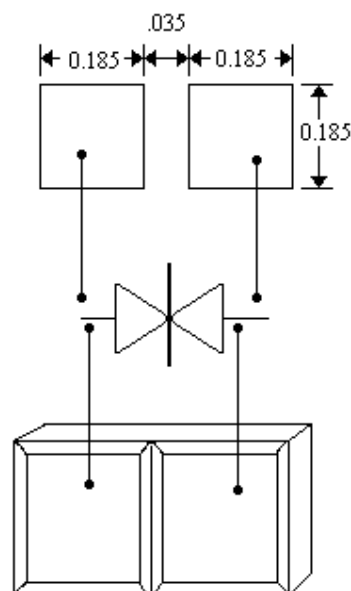
- Waffle package
- 15 pieces per pack (STANDARD)

BIDIRECTIONAL ALL DIMENSIONS NOMINAL

FLIP CHIP DIMENSIONS

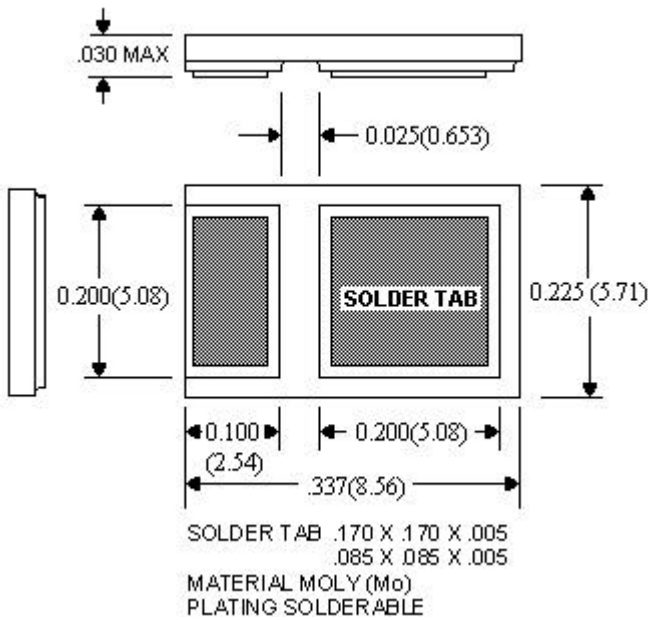


PAD SIZE & CIRCUIT

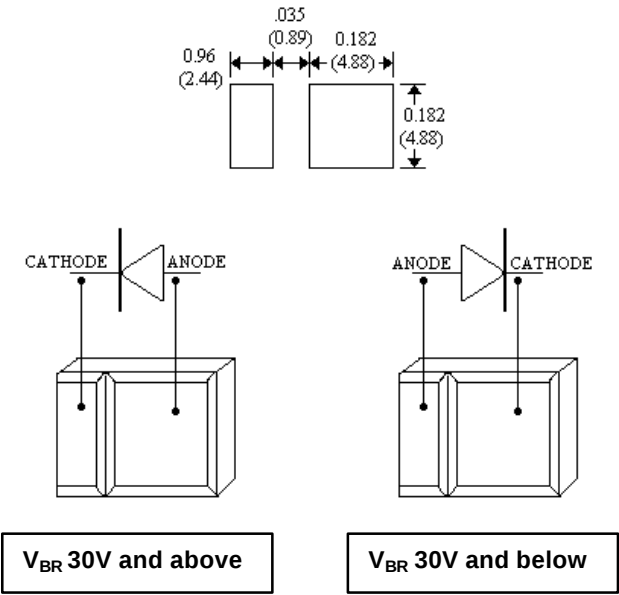


UNIDIRECTIONAL ALL DIMENSIONS NOMINAL

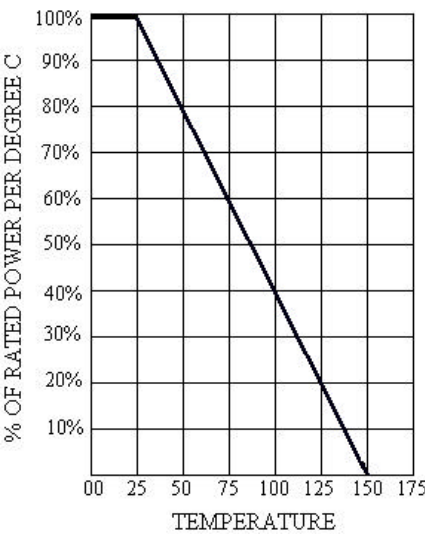
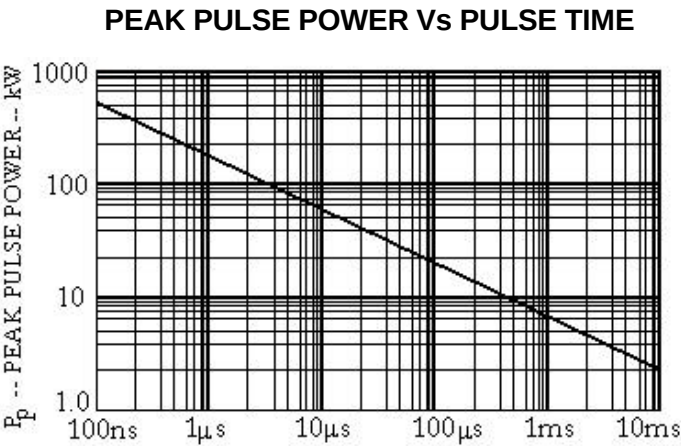
FLIP CHIP DIMENSIONS



PAD SIZE & CIRCUIT



POWER DERATING



CHF5KP5.0 thru CHF5KP110CA

ELECTRICAL Characteristics @ 25°C Unless otherwise specified

PART NUMBERS	REVERSE Stand - Off Voltage V_{WM}	Breakdown Voltage $V_{(BR)}$ @ I_T		Maximum Clamping Voltage @IPP (1 mSEC) V_C Volts	Maximum Reverse Leakage @ V_{WM}	Maximum Peak-Pulse (Fig 3) I_{PP}	Maximum Voltage Temperature Variation of $V_{(BR)}$
	VOLTS	VOLTS MIN	mA	VOLTS	μA	AMPS	mV/°C
CHF5KP5.0	5	6.40	50	9.6	2000	520	4.0
CHF5KP5.0A	5	6.40	50	9.2	2000	543	4.0
CHF5KP6.0	6	6.67	50	11.4	5000	439	4.0
CHF5KP6.0A	6	6.67	50	10.3	5000	485	4.0
CHF5KP6.5	6.5	7.22	50	12.3	2000	407	4.0
CHF5KP6.5A	6.5	7.22	50	11.2	2000	447	4.0
CHF5KP7.0	7.0	7.78	50	13.3	1000	378	5.0
CHF5KP7.0A	7.0	7.78	50	12.0	1000	417	5.0
CHF5KP7.5	7.5	8.33	5	14.3	250	350	6.0
CHF5KP7.5A	7.5	8.33	5	12.9	250	388	6.0
CHF5KP8.0	8.0	8.89	5	15.0	150	333	6.0
CHF5KP8.0A	8.0	8.89	5	13.6	150	367	6.0
CHF5KP8.5	8.5	9.44	5	15.9	50	314	7.0
CHF5KP8.5A	8.5	9.44	5	14.4	50	347	7.0
CHF5KP9.0	9.0	10.0	5	16.9	20	295	8.0
CHF5KP9.0A	9.0	10.0	5	15.4	20	325	8.0
CHF5KP10	10	11.1	5	18.8	15	266	9.0
CHF5KP10A	10	11.1	5	17.0	15	294	9.0
CHF5KP11	11	12.2	5	20.1	10	249	10
CHF5KP11A	11	12.2	5	18.2	10	274	10
CHF5KP12	12	13.3	5	22.0	10	227	11
CHF5KP12A	12	13.3	5	19.9	10	251	11
CHF5KP13	13	14.4	5	23.8	10	210	12
CHF5KP13A	13	14.4	5	21.5	10	232	12
CHF5KP14	14	15.6	5	25.8	10	194	13
CHF5KP14A	14	15.6	5	23.2	10	215	13
CHF5KP15	15	16.7	5	26.9	10	188	15
CHF5KP15A	15	16.7	5	24.4	10	206	15
CHF5KP16	16	17.8	5	28.8	10	176	18
CHF5KP16A	16	17.8	5	26.0	10	192	16
CHF5KP17	17	18.9	5	30.5	10	164	19
CHF5KP17A	17	18.9	5	27.6	10	181	18
CHF5KP18	18	20.0	5	32.2	10	155	20
CHF5KP18A	18	20.0	5	29.2	10	172	19
CHF5KP20	20	22.2	5	35.8	10	139	24
CHF5KP20A	20	22.2	5	32.4	10	154	22
CHF5KP22	22	24.4	5	39.4	10	127	27
CHF5KP22A	22	24.4	5	35.5	10	141	24
CHF5KP24	24	26.7	5	43.0	10	116	30
CHF5KP24A	24	26.7	5	38.9	10	128	27
CHF5KP26	26	28.9	5	46.6	10	107	33
CHF5KP26A	26	28.9	5	42.1	10	119	29
CHF5KP28	28	31.1	5	50.1	10	99	34
CHF5KP28A	28	31.1	5	45.5	10	110	30
CHF5KP30	30	33.3	5	53.5	10	93	38
CHF5KP30A	30	33.3	5	48.4	10	103	35
CHF5KP33	33	36.7	5	59.0	10	85	41
CHF5KP33A	33	36.7	5	53.3	10	94	38
CHF5KP36	36	40.0	5	64.3	10	78	45
CHF5KP36A	36	40.0	5	58.1	10	86	40
CHF5KP40	40	44.4	5	71.4	10	70	50
CHF5KP40A	40	44.4	5	64.5	10	78	45
CHF5KP43	43	47.8	5	76.7	10	65	54
CHF5KP43A	43	47.8	5	69.4	10	72	49
CHF5KP45	45	50.0	5	80.3	10	62	57
CHF5KP45A	45	50.0	5	72.7	10	69	51
CHF5KP48	48	53.3	5	85.5	10	58	62
CHF5KP48A	48	53.3	5	77.4	10	65	55
CHF5KP51	51	56.7	5	91.1	10	55	65
CHF5KP51A	51	56.7	5	82.4	10	61	60
CHF5KP54	54	60.0	5	96.3	10	52	70
CHF5KP54A	54	60.0	5	87.1	10	57	64
CHF5KP58	58	64.4	5	103.0	10	49	77
CHF5KP58A	58	64.4	5	93.6	10	53	69
CHF5KP60	60	66.7	5	107.0	10	47	79
CHF5KP60A	60	66.7	5	96.8	10	52	70
CHF5KP64	64	71.1	5	114.0	10	44	85
CHF5KP64A	64	71.1	5	103.0	10	49	75
CHF5KP70	70	77.8	5	125	10	40	93
CHF5KP70A	70	77.8	5	113	10	44	84
CHF5KP75	75	83.3	5	134	10	37	100
CHF5KP75A	75	83.3	5	121	10	41	90
CHF5KP78	78	86.7	5	139	10	36	104
CHF5KP78A	78	86.7	5	126	10	40	94
CHF5KP85	85	94.4	5	151	10	33	113
CHF5KP85A	85	94.4	5	137	10	36	102
CHF5KP90	90	100	5	160	10	31	120
CHF5KP90A	90	100	5	146	10	34	109
CHF5KP100	100	111	5	179	10	28	134
CHF5KP100A	100	111	5	162	10	31	122
CHF5KP110	110	122	5	196	10	26	147
CHF5KP110A	110	122	5	177	10	28	132

For bidirectional devices add a "C" (example CHF5KP6.8C and CHF5KP6.8CA are bidirectional devices)

"A" designates ± 5% tolerance; plain designates ± 10% tolerance