



## FHV03-08 THRU FHV03-09 SPECIFICATIONS

Rev. A

### FAST RECOVERY HIGH VOLTAGE MICROWAVE OVEN RECTIFIER

| <table><tr><th colspan="3">Value Inch[mm]</th></tr><tr><th>Dim.</th><th>Min.</th><th>Max.</th></tr><tr><td>A</td><td>0.866[22.00]</td><td>---</td></tr><tr><td>B</td><td>0.787[19.99]</td><td>0.866[22.00]</td></tr><tr><td>C</td><td>0.267[6.78]</td><td>0.295[7.49]</td></tr><tr><td>D</td><td>0.048[1.22]</td><td>0.052[1.32]</td></tr></table> | Value Inch[mm] |              |  | Dim. | Min. | Max. | A | 0.866[22.00] | --- | B | 0.787[19.99] | 0.866[22.00] | C | 0.267[6.78] | 0.295[7.49] | D | 0.048[1.22] | 0.052[1.32] | <b>PRODUCT FEATURES</b> <ol style="list-style-type: none"><li>1. FLAMMABILITY CLASSIFICATION: 94V-0</li><li>2. DESIGNED MICROWAVE OVEN AND AIR CLEANER</li><li>3. TYPICAL <math>I_R</math> LESS THAN 1uA</li><li>4. CASE: HV03 TRANSFER MOLDED</li><li>5. DIMENSIONS IN INCHES AND (MILLIMETERS)</li><li>6. POLARITY: INDICATED BY CATHODE BAND</li><li>7. WEIGHT: 2.8 GRAMS</li><li>8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208</li><li>9. PULLING TEST: 2.3 KG</li><li>10. RoHS</li></ol> |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|--------------|--|------|------|------|---|--------------|-----|---|--------------|--------------|---|-------------|-------------|---|-------------|-------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Value Inch[mm]                                                                                                                                                                                                                                                                                                                                     |                |              |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| Dim.                                                                                                                                                                                                                                                                                                                                               | Min.           | Max.         |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| A                                                                                                                                                                                                                                                                                                                                                  | 0.866[22.00]   | ---          |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| B                                                                                                                                                                                                                                                                                                                                                  | 0.787[19.99]   | 0.866[22.00] |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| C                                                                                                                                                                                                                                                                                                                                                  | 0.267[6.78]    | 0.295[7.49]  |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| D                                                                                                                                                                                                                                                                                                                                                  | 0.048[1.22]    | 0.052[1.32]  |  |      |      |      |   |              |     |   |              |              |   |             |             |   |             |             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +120°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

| RATINGS                                                                 | SYMBOL    | VALUE | UNITS |
|-------------------------------------------------------------------------|-----------|-------|-------|
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ TL=55°C                     | $I_O$     | 0.35  | A     |
| PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | $I_{FSM}$ | 15    | A     |
| MAXIMUM REVERSE CURRENT @ 25°C, VDC                                     | $I_R$     | 10    | uA    |
| MAXIMUM REVERSE RECOVERY TIME (NOTE1)                                   | $T_{RR}$  | 150   | nS    |

1. REVERSE RECOVERY TIME TEST CONDITIONS,  $I_F/I_{RP} = 100/100$  (mA) 90% RECOVER

2. MAXIMUM FORWARD VOLTAGE @  $I_O$

| PART NUMBER | MAX RECURRENT PK REV VOLTAGE $V_{RRM}$ (V) | MAX RMS VOLTAGE $V_{RMS}$ (V) | MAX DC BLOCKING VOLTAGE $V_{DC}$ (V) | MAX FWD VOLTAGE $V_F$ (V) |
|-------------|--------------------------------------------|-------------------------------|--------------------------------------|---------------------------|
| FHV03-08    | 7500                                       | 5250                          | 7500                                 | 13.5                      |
| FHV03-09    | 8500                                       | 5950                          | 8500                                 | 14                        |



## RATING AND CHARACTERISTIC CURVES

FIG. 1-FORWARD CURRENT DERATING CURVE

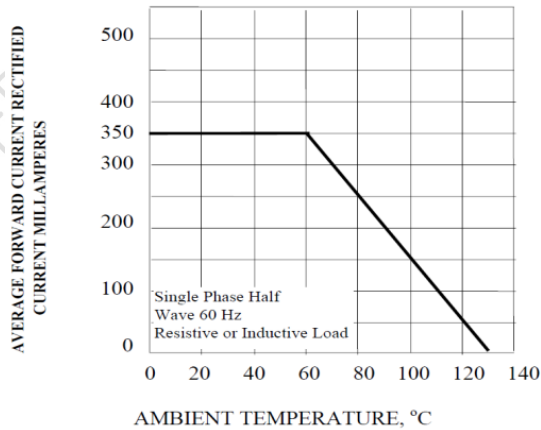


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE RATING

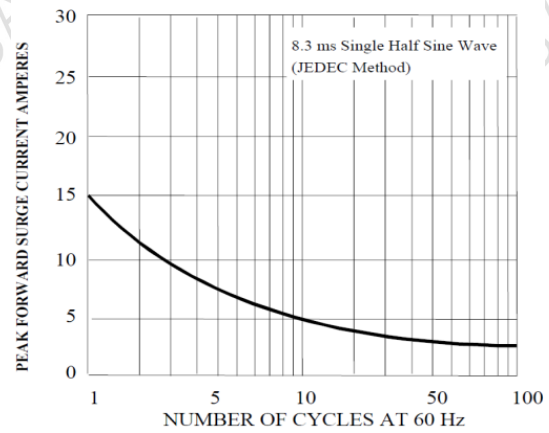


FIG. 3- TYPICAL REVERSE CHARACTERISTICS

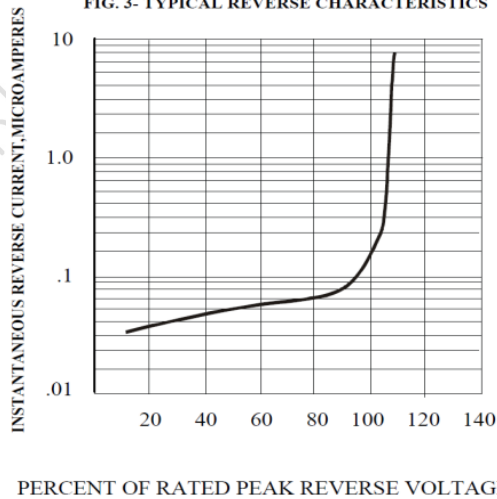


FIG. 4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

