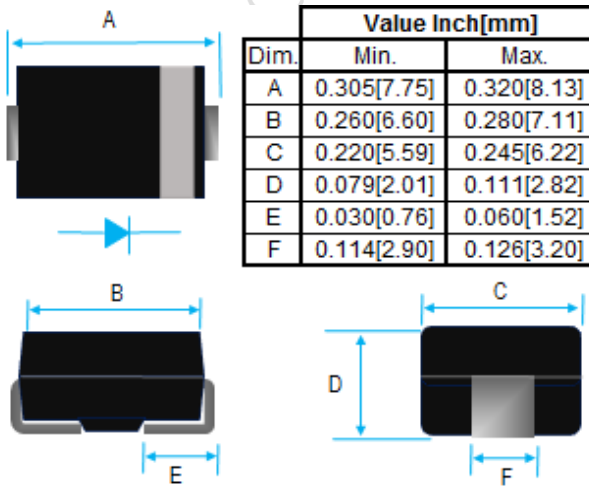


## 10A GENERAL PURPOSE RECTIFIER

|  |                | <table border="1"> <thead> <tr> <th rowspan="2">Dim.</th> <th colspan="2">Value Inch[mm]</th> </tr> <tr> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>0.305[7.75]</td> <td>0.320[8.13]</td> </tr> <tr> <td>B</td> <td>0.260[6.60]</td> <td>0.280[7.11]</td> </tr> <tr> <td>C</td> <td>0.220[5.59]</td> <td>0.245[6.22]</td> </tr> <tr> <td>D</td> <td>0.079[2.01]</td> <td>0.111[2.82]</td> </tr> <tr> <td>E</td> <td>0.030[0.76]</td> <td>0.060[1.52]</td> </tr> <tr> <td>F</td> <td>0.114[2.90]</td> <td>0.126[3.20]</td> </tr> </tbody> </table>   |  | Dim. | Value Inch[mm] |  | Min. | Max. | A | 0.305[7.75] | 0.320[8.13] | B | 0.260[6.60] | 0.280[7.11] | C | 0.220[5.59] | 0.245[6.22] | D | 0.079[2.01] | 0.111[2.82] | E | 0.030[0.76] | 0.060[1.52] | F | 0.114[2.90] | 0.126[3.20] |
|---|----------------|---|--|------|----------------|--|------|------|---|-------------|-------------|---|-------------|-------------|---|-------------|-------------|---|-------------|-------------|---|-------------|-------------|---|-------------|-------------|
| Dim.  | Value Inch[mm] |   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
|   | Min.           | Max.  |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| A   | 0.305[7.75]    | 0.320[8.13]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| B   | 0.260[6.60]    | 0.280[7.11]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| C   | 0.220[5.59]    | 0.245[6.22]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| D   | 0.079[2.01]    | 0.111[2.82]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| E   | 0.030[0.76]    | 0.060[1.52]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
| F   | 0.114[2.90]    | 0.126[3.20]   |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |
|   |                | <b>PRODUCT FEATURES</b> <ol style="list-style-type: none"> <li>1. FLAMMABILITY CLASSIFICATION 94V-0</li> <li>2. METAL-SILICON JUNCTION</li> <li>3. GUARD RING FOR OVER VOLTAGE PROTECTION</li> <li>4. HIGH FORWARD SURGE CURRENT CAPABILITY</li> <li>5. LOW FORWARD VOLTAGE</li> <li>6. CASE: MOLDED PLASTIC DO-214AB (SMC)</li> <li>7. DIMENSIONS IN INCHES AND (MILLIMETERS)</li> <li>8. LEADS: SOLDERABILITY PER MIL-STD-750, METHOD 2026</li> <li>9. POLARITY: COLOR BAND DENOTES CATHODE</li> <li>10. WEIGHT: 0.25 GRAMS</li> <li>11. RoHS COMPLIANT, LEAD FREE</li> </ol> |  |      |                |  |      |      |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |   |             |             |

## ELECTRICAL CHARACTERISTICS

### MAXIMUM RATINGS ( $T_A = 25^\circ\text{C}$ UNLESS OTHERWISE NOTED) AND ELECTRICAL CHARACTERISTICS

| RATING   | SYMBOL          |              | UNITS              |
|--|-----------------|--------------|--------------------|
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT, SEE NOTE 1                                      | $I_o$           | 10           | A                  |
| PEAK FORWARD SURGE CURRENT, 8.3ms SINGLE HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD         | $I_{FSM}$       | 180          | A                  |
| TYPICAL JUNCTION CAPACITANCE (NOTE 1)  | $C_J$           | 60           | pF                 |
| TYPICAL THERMAL RESISTANCE (NOTE 2)  | $R_{\theta JL}$ | 10           | $^\circ\text{C/W}$ |
|  | $R_{\theta JA}$ | 100          | $^\circ\text{C/W}$ |
| STORAGE TEMPERATURE RANGE  | $T_{STG}$       | - 55 TO +150 | $^\circ\text{C}$   |
| OPERATING TEMPERATURE RANGE  | $T_{OP}$        | - 55 TO +150 | $^\circ\text{C}$   |
| MAXIMUM REVERSE CURRENT AT $25^\circ\text{C}$  | $I_R$           | 10           | $\mu\text{A}$      |
| MAXIMUM REVERSE CURRENT AT $100^\circ\text{C}$   | $I_R$           | 100          | $\mu\text{A}$      |
| MAXIMUM REVERSE RECOVERY TIME, $I_F=0.5\text{A}$ , $I_R=1\text{A}$ , $I_{RR}=0.25\text{A}$ | $T_{RR}$        | >800         | $\mu\text{S}$      |

| PART NUMBER | MAX RECURRENT PK REVERSE VOLTAGE/DC BLOCKING $V_{RRM}/V_R$ (V) | MAX $V_{RMS}$ (V) | MAXIMUM FORWARD VOLTAGE @ $25^\circ\text{C}$ $V_F$ (V) |
|-------------|--|-------------------|--|
| S10A        | 50   | 35                | 1.2  |
| S10B        | 100  | 70                | 1.2  |
| S10D        | 200  | 140               | 1.2  |
| S10G        | 400  | 280               | 1.2  |
| S10J        | 600  | 420               | 1.2  |
| S10K        | 800  | 560               | 1.2  |
| S10M        | 1000   | 700               | 1.2  |

NOTE : 1. MEASURED AT 1MHz WITH APPLIED REVERSE VOLTAGE OF 4VDC.  
 2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL  $8 \times 8 \text{ mm}^2$  LAND AREA.  
 3. CURRENT RATING IS BASED ON SINGLE PHASE, 1/2 WAVE, 60HZ, RESISTIVE, OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.



## RATINGS AND CHARACTERISTIC CURVES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

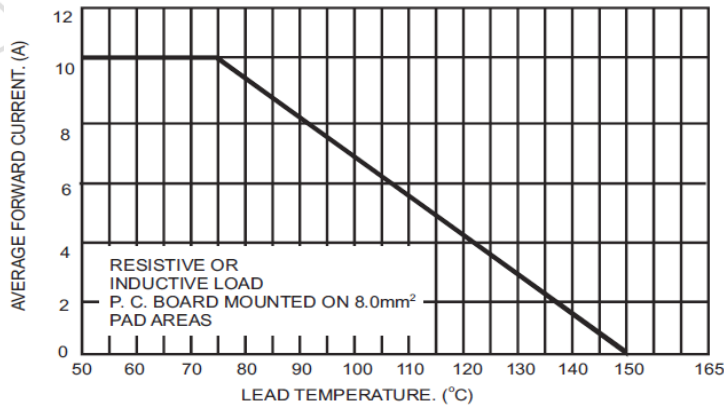


FIG.2- TYPICAL FORWARD CHARACTERISTICS

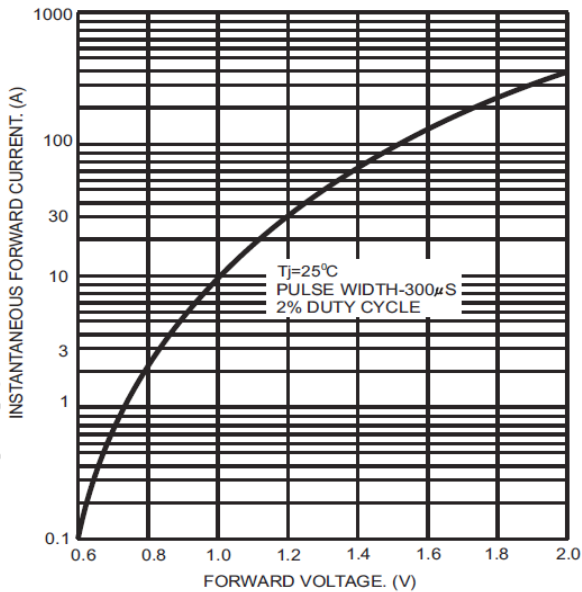


FIG.3- TYPICAL REVERSE CHARACTERISTICS

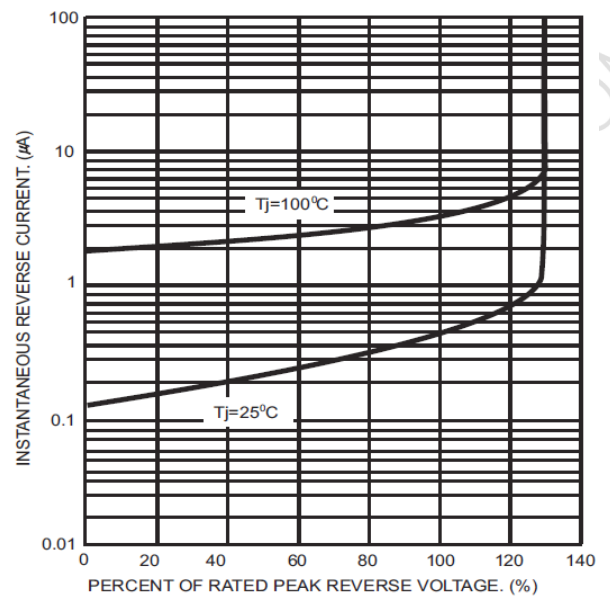


FIG.4- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

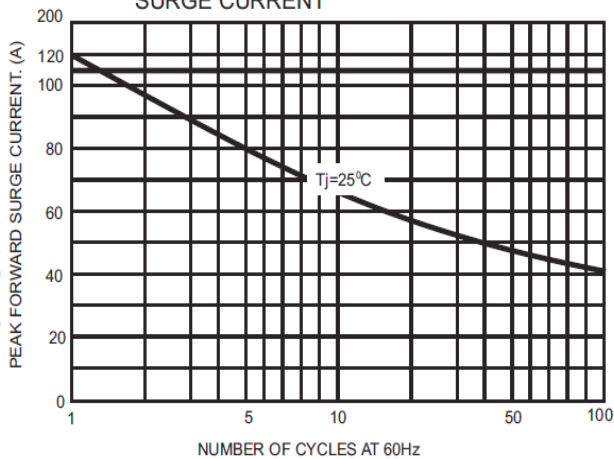


FIG.5- TYPICAL JUNCTION CAPACITANCE

