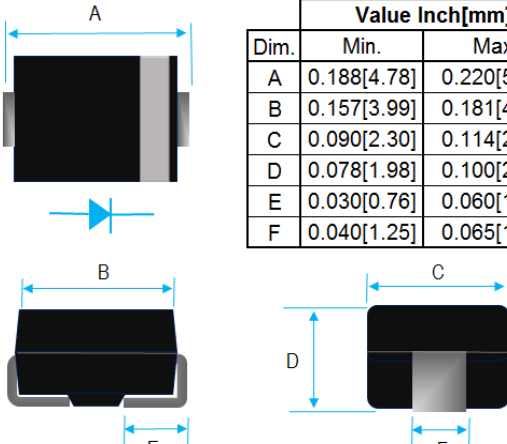


## 1A SURFACE MOUNT FAST RECOVERY RECTIFIERS

|   |                |             |   |             |
|---|----------------|-------------|---|-------------|
|  | Value Inch[mm] |             | <b>PRODUCT FEATURES</b> <ol style="list-style-type: none"> <li>1. FLAMMABILITY CLASSIFICATION: 94V-0</li> <li>2. GLASS PASSIVATED CHIP JUNCTION</li> <li>3. BUILT-IN STRAIN RELIEF</li> <li>4. LOW PROFILE</li> <li>5. FAST SWITCHING</li> <li>6. CASE: MOLDED PLASTIC, DO-214AC (SMA)</li> <li>7. DIMENSIONS IN INCHES AND (MILLIMETERS)</li> <li>8. POLARITY: INDICATED BY CATHODE BAND</li> <li>9. WEIGHT : 0.064 GRAMS</li> <li>10. RoHS</li> </ol> |             |
|   | Dim.           | Min.        |   | Max.        |
|   | A              | 0.188[4.78] |   | 0.220[5.60] |
|   | B              | 0.157[3.99] |   | 0.181[4.60] |
|   | C              | 0.090[2.30] |   | 0.114[2.90] |
|   | D              | 0.078[1.98] |   | 0.100[2.60] |
|   | F              | 0.040[1.25] |   | 0.065[1.65] |

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED. STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

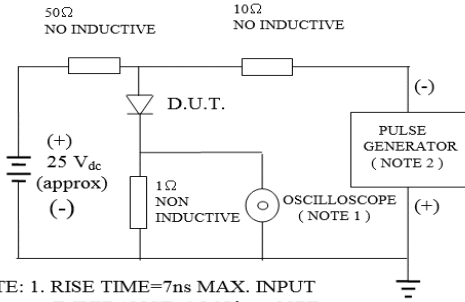
| RATINGS   | SYMBOL | VALUE | UNITS |
|---|--------|-------|-------|
| MAXIMUM AVERAGE FORWARD RECTIFIED CURRENT @ TL=90°C                     | IO     | 1     | A     |
| PEAK FWD SURGE CURRENT, 8.3ms HALF SINE-WAVE SUPERIMPOSED ON RATED LOAD | IFSM   | 30    | A     |
| TYPICAL JUNCTION CAPACITANCE(NOTE 1)                                    | CJ     | 15    | pF    |
| TYPICAL THERMAL RESISTANCE (NOTE 2)                                     | Rqja   | 30    | °C/W  |
| MAXIMUM FORWARD VOLTAGE   | VF     | 1.3   | V     |
| MAXIMUM REVERSE CURRENT @ 25°C  | IR     | 5     | uA    |

1. MEASURED @ 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. THERMAL RESISTANCE FROM JUNCTION TO TERMINAL 5.0mm2 (.013 mm THICK) LAND AREAS
3. REVERSE RECOVERY TEST CONDITIONS: IF=0.5A, IR=1.0A, IRR=0.25A
4. MAXIMUM FORWARD VOLTAGE AT IO DC

| PART NUMBER | MAX RECURRENT PK REV VOLTAGE $V_{RRM}$ (V) | MAX RMS VOLTAGE $V_{RMS}$ (V) | MAX DC BLOCKING VOLTAGE $V_{DC}$ (V) | MARKING | MAX REV RECOVERY TIME $T_{RR}$ (nS) |
|-------------|--|-------------------------------|--------------------------------------|---------|-------------------------------------|
| RS1A        | 50   | 35                            | 50                                   | RS1A    | 150                                 |
| RS1B        | 100  | 70                            | 100                                  | RS1B    | 150                                 |
| RS1D        | 200  | 140                           | 200                                  | RS1D    | 150                                 |
| RS1G        | 400  | 280                           | 400                                  | RS1G    | 150                                 |
| RS1J        | 600  | 420                           | 600                                  | RS1J    | 250                                 |
| RS1K        | 800  | 560                           | 800                                  | RS1K    | 500                                 |
| RS1M        | 1000                                       | 700                           | 1000                                 | RS1M    | 500                                 |

## RATING AND CHARACTERISTIC CURVES

FIG. 1-TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTE: 1. RISE TIME=7ns MAX. INPUT IMPEDANCE=1 MOhms 22PF  
2. RISE TIME =10ns MAX. SOURCE IMPEDANCE=50 OHMS

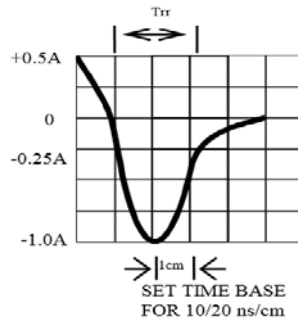


Fig. 2-MAXIMUM CURRENT DERATING CURVE

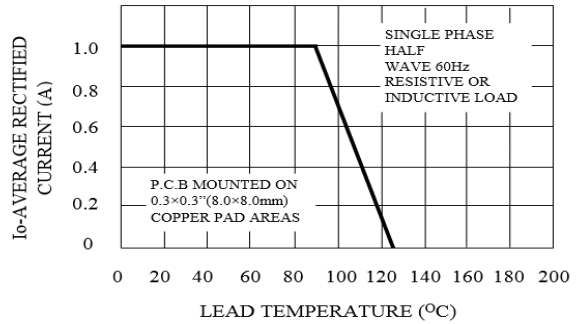


FIG. 3-TYPICAL JUNCTION CAPACITANCE

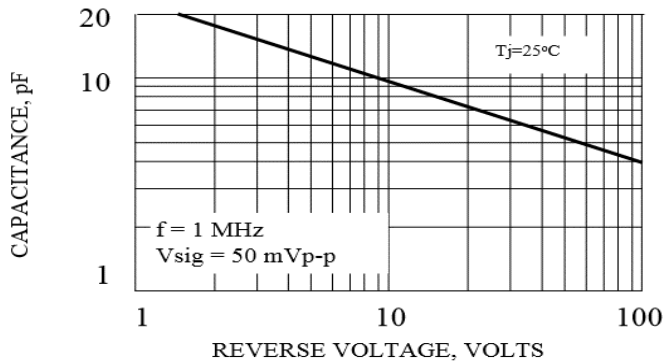


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

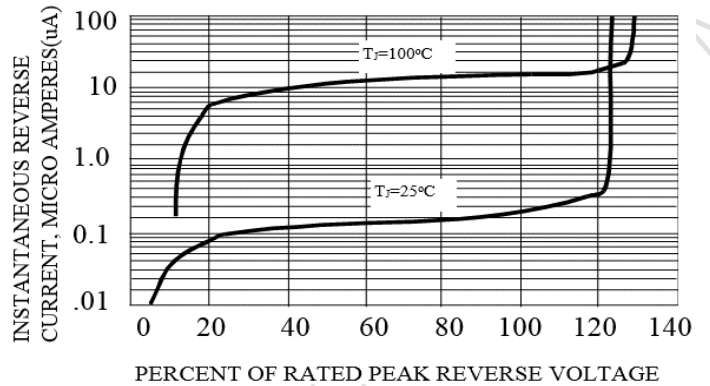


Fig. 5-MAXIMUM FORWARD SURGE CURRENT

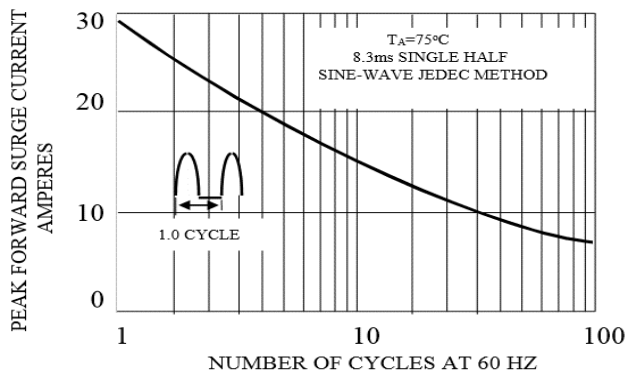


FIG. 6-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

