



**/ Absolute Maximum Ratings(Ta=25 )**

| Parameter                                                                                                 | Symbol          | Rating   |     |     |     |     |     |      | Unit |
|-----------------------------------------------------------------------------------------------------------|-----------------|----------|-----|-----|-----|-----|-----|------|------|
|                                                                                                           |                 | M1       | M2  | M3  | M4  | M5  | M6  | M7   |      |
| Maximum Repetitive Peak Reverse Voltage                                                                   | $V_{RRM}$       | 50       | 100 | 200 | 400 | 600 | 800 | 1000 | V    |
| Maximum RMS Voltage                                                                                       | $V_{RMS}$       | 35       | 70  | 140 | 280 | 420 | 560 | 700  | V    |
| Maximum DC Blocking Voltage                                                                               | $V_{DC}$        | 50       | 100 | 200 | 400 | 600 | 800 | 1000 | V    |
| Maximum Average Forward Rectified Current at $T_c=125$                                                    | $I_{F AV}$      | 1.0      |     |     |     |     |     |      | A    |
| Peak Forward Surge Current<br>8.3ms Single Half Sine Wave<br>Superimposed on Rated Load<br>(JEDEC Method) | $I_{FSM}$       | 30       |     |     |     |     |     |      | A    |
| Typical Junction Capacitance <sup>1</sup>                                                                 | $C_j$           | 15       |     |     |     |     |     |      | pF   |
| Typical Thermal Resistance <sup>2)</sup>                                                                  | $R_{\theta JA}$ | 80       |     |     |     |     |     |      | /W   |
| Operating and Storage Temperature Range                                                                   | $T_j, T_{stg}$  | -55~+150 |     |     |     |     |     |      | /W   |

Note:

1).Measured at 1 MHz and applied reverse voltage of 4 V.D.C

2).P.C.B. mounted with 0.2X0.2"(5X5mm) copper pad areas.

**/ Electrical Characteristics(Ta=25 )**

| Parameter                                                    | Symbol | Test Conditions | Rating |    |    |    |    |    |    | Unit    |
|--------------------------------------------------------------|--------|-----------------|--------|----|----|----|----|----|----|---------|
|                                                              |        |                 | M1     | M2 | M3 | M4 | M5 | M6 | M7 |         |
| Maximum Instantaneous Forward Voltage                        | $V_F$  | $I_F=1.0A$      | 1.1    |    |    |    |    |    |    | V       |
| Maximum DC Reverse Current at<br>Maximum DC Blocking Voltage | $I_R$  | $T_a=25$        | 5.0    |    |    |    |    |    |    | $\mu A$ |
|                                                              |        | $T_a=125$       | 50     |    |    |    |    |    |    | $\mu A$ |

## / Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

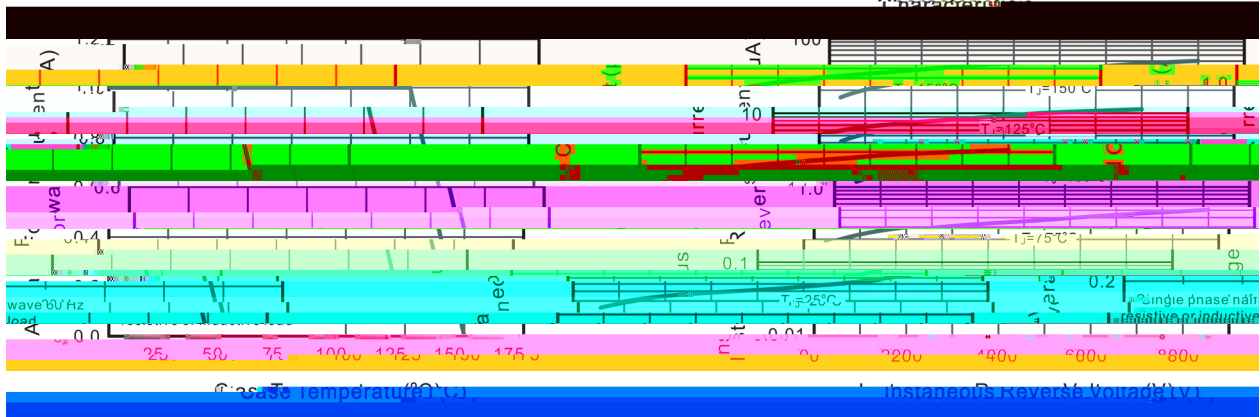


Fig.2 Typical Instantaneous Reverse Characteristics

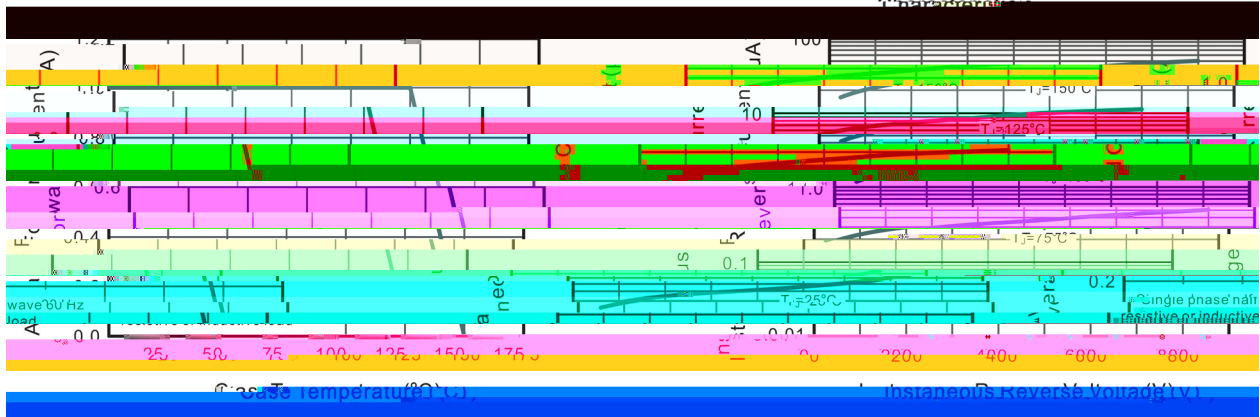


Fig.3 Typical Forward Characteristic

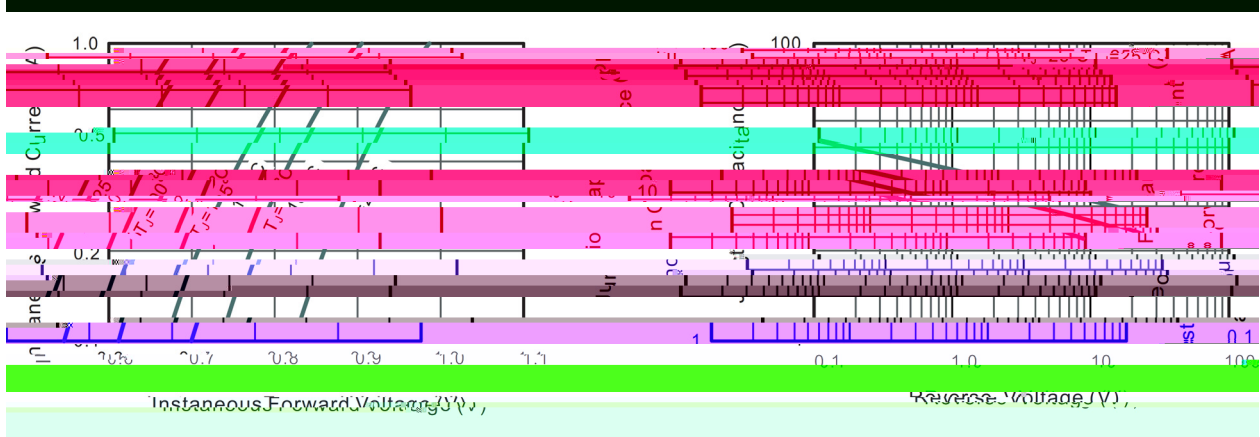


Fig.4 Typical Junction Capacitance

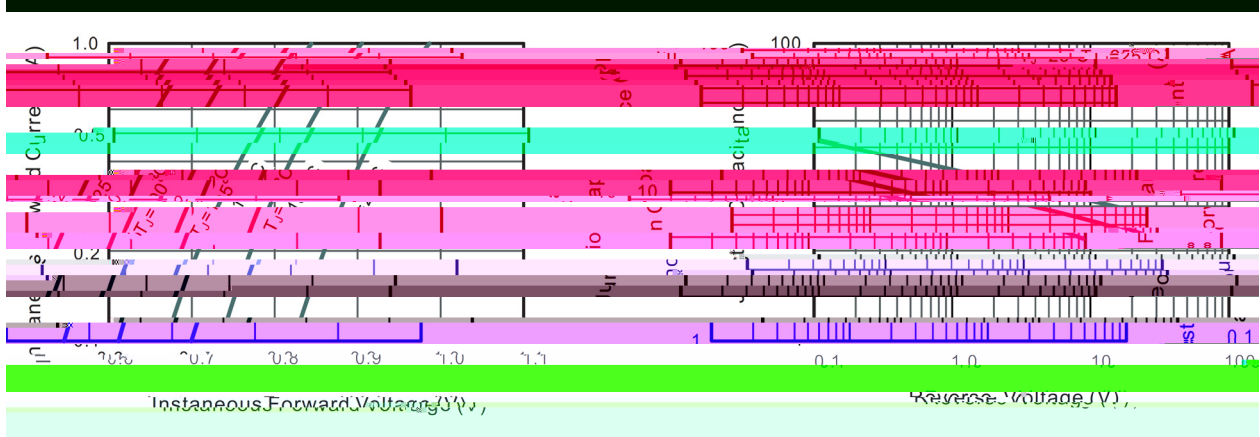
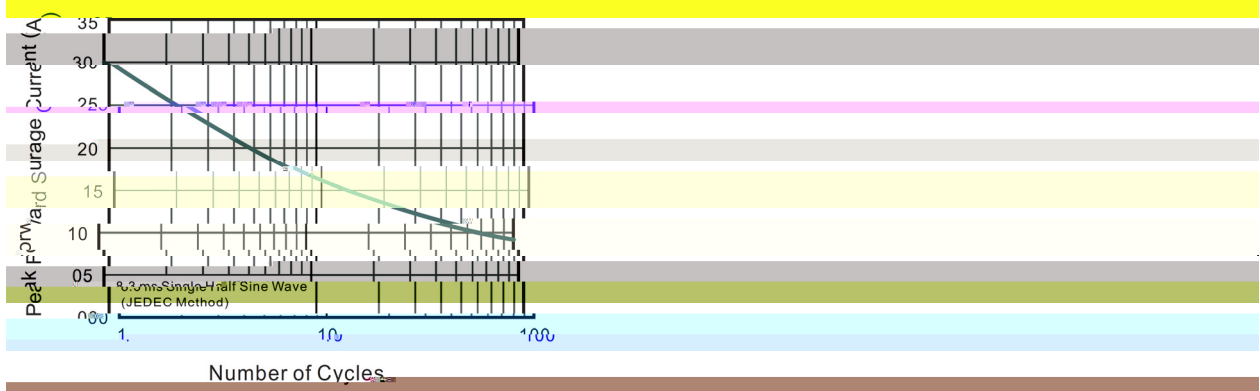
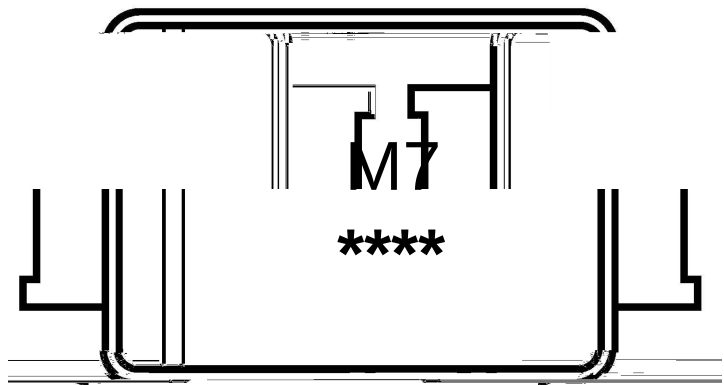


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





/ Marking Instructions



M7  
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Note:

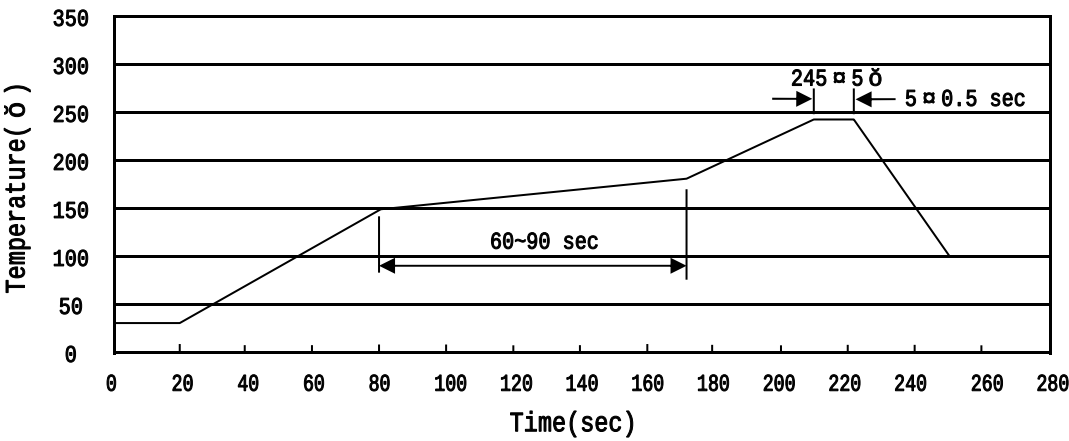
M7           Product Type Code

\*\*\*\*\*       Lot No. Code, code change with Lot No

Marking

| Type number | Marking code |
|-------------|--------------|
| M1          | M1           |
| M2          | M2           |
| M3          | M3           |
| M4          | M4           |
| M5          | M5           |
| M6          | M6           |
| M7          | M7           |

(     ) / Temperature Profile for IR Reflow Soldering(Pb-Free)



Note:

- 1

150 180

60 90sec;

1.Preheating:150~180 , Time:60~90sec.
- 2

245±5

5±0.5sec;

2.Peak Temp.:245±5 , Duration:5±0.5sec.
- 3

2 10 /sec.

3. Cooling Speed: 2~10 /sec.

/ Resistance to Soldering Heat Test Conditions

260±5                      10±1 sec.                      Temp.:260±5                      Time:10±1 sec

/ Packaging SPEC.

/ REEL

| Package Type | Units |   |        |   |        | Dimension (unit mm <sup>3</sup> ) |             |             |
|--------------|-------|---|--------|---|--------|-----------------------------------|-------------|-------------|
|              |       |   |        |   |        |                                   |             |             |
| SMAF         | 3,000 | 5 | 15,000 | 6 | 90,000 | 7 ×12                             | 185×180×105 | 390×385×205 |

/ Notices