

**M1~M7**  
Rev.H Mar.-2024

## / 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 8.3ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	$I_{FSM}$	30							A
Typical Junction Capacitance <sup>1</sup>	$C_j$	15							pF
Typical Thermal Resistance <sup>2)</sup>	$R_{JA}$	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 VD.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 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

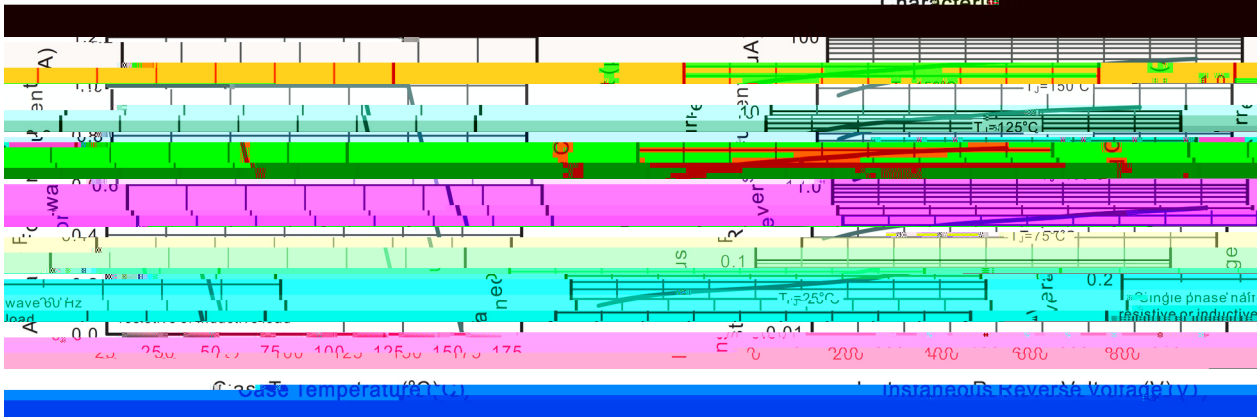


Fig.2 Typical Instantaneous Reverse Characteristics

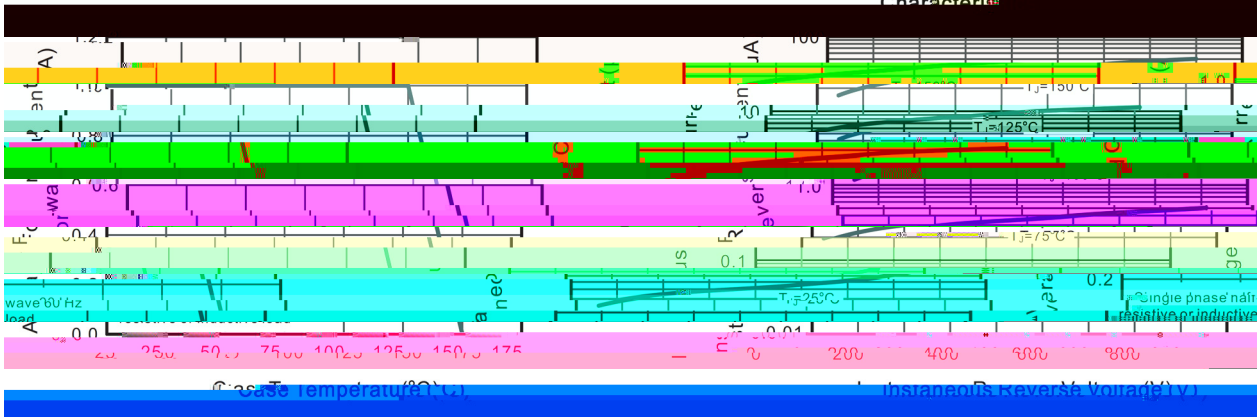


Fig.3 Typical Forward Characteristic

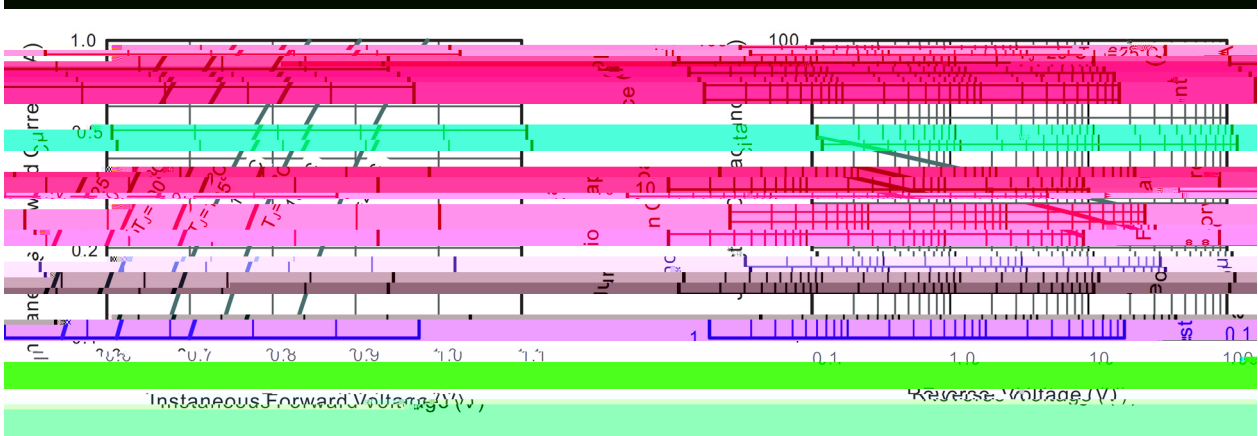


Fig.4 Typical Junction Capacitance

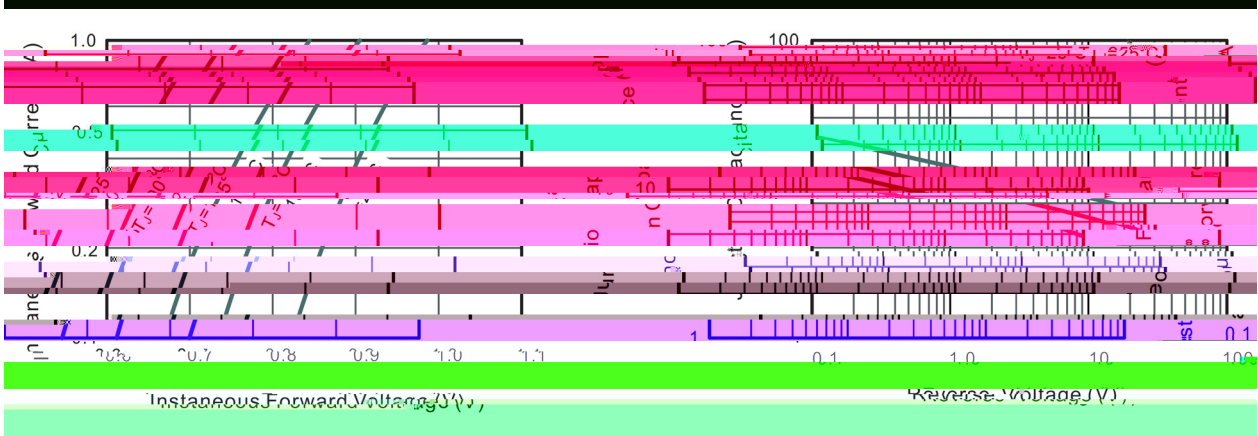
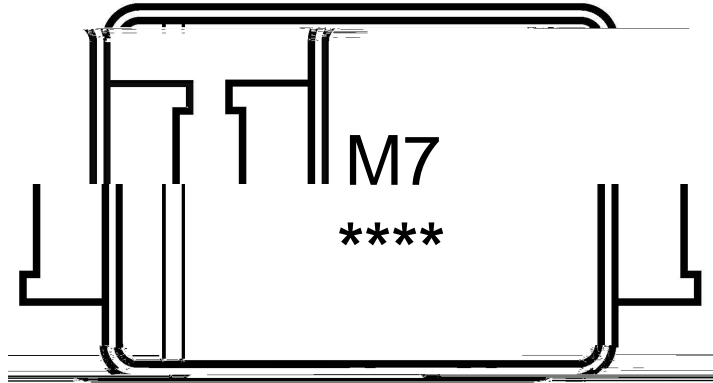


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current





/ Marking Instructions



M7  
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Note:

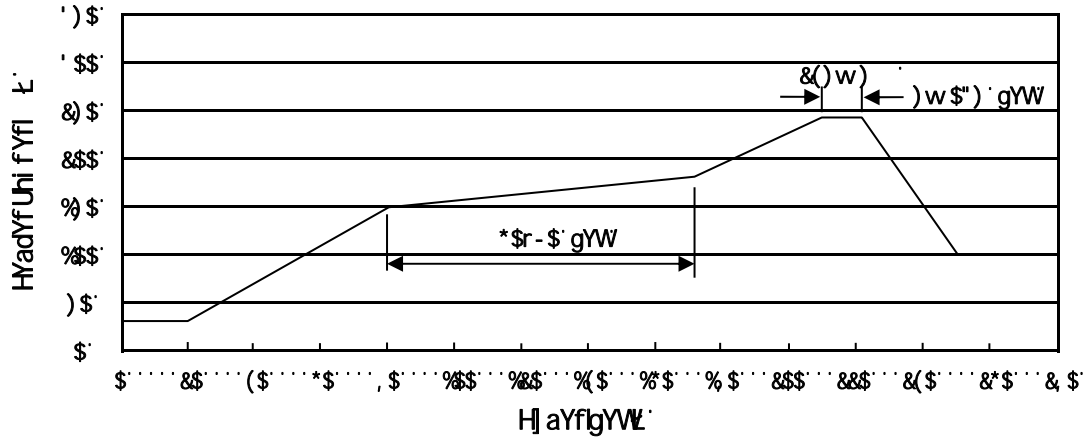
M7      Product Type Code

\*\*\*\*      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> )		
	3,000	5	15,000	6	90,000	7 x12	185x180x105	390x385x205
SMAF	3,000	5	15,000	6	90,000	7 x12	185x180x105	390x385x205

/ Notices