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[1]	C_j	15							pF
Typical Thermal Resistance[2)]	$R_{\theta JA}$	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 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							μA
		T_a=125	50							μA

/ Electrical Characteristic Curve

Fig.1 Forward Current Derating Curve

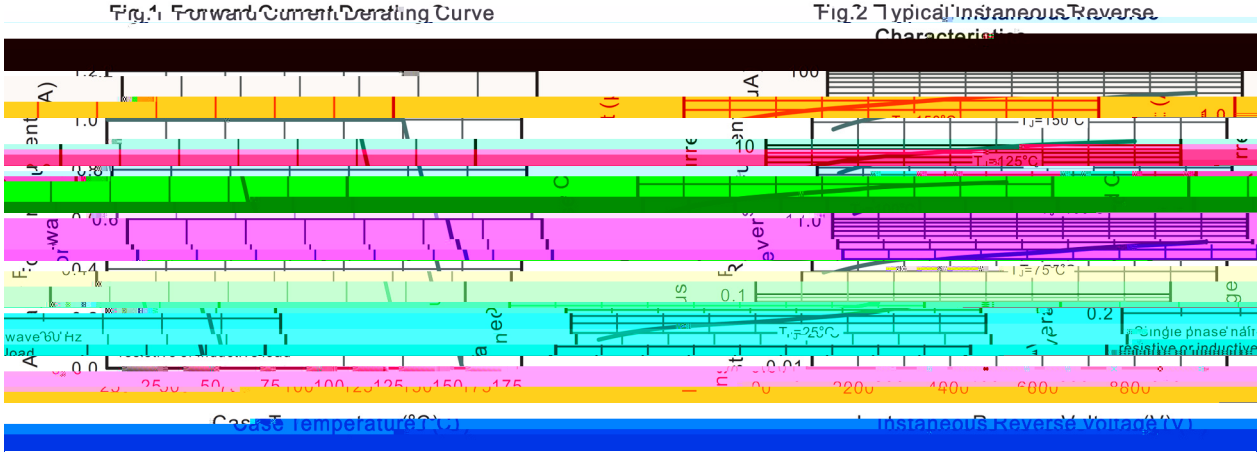


Fig.2 Typical Instaneous Reverse Characteristics

Fig.3 Typical Forward Characteristic

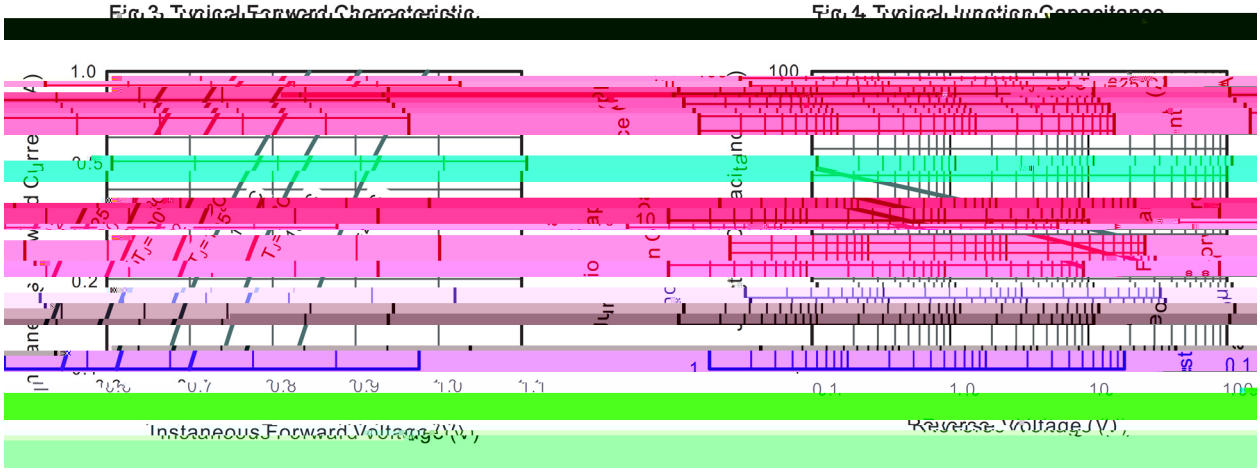
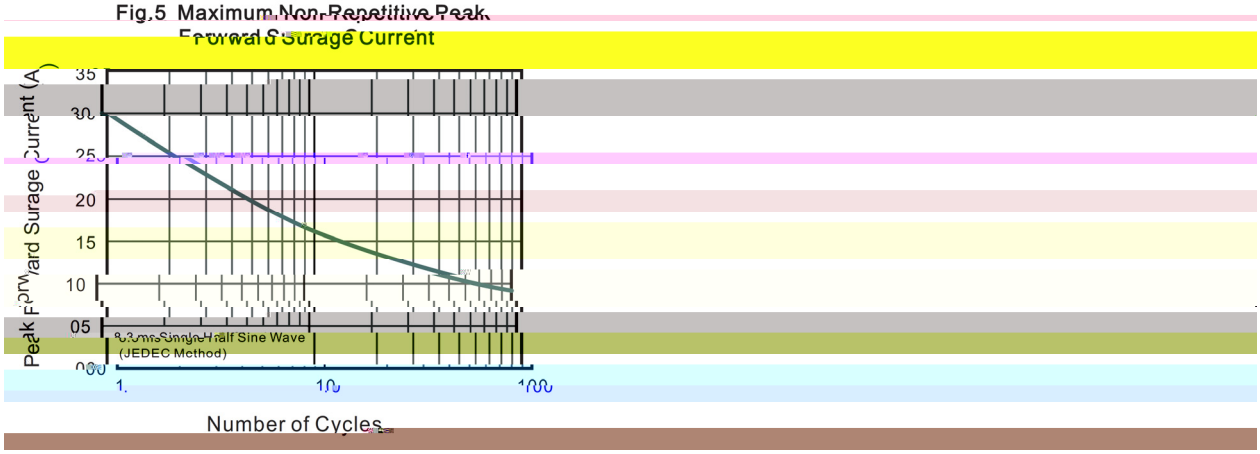
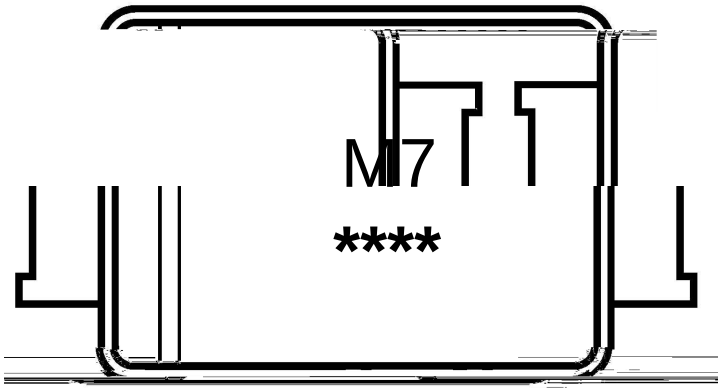


Fig.4 Typical Junction Capacitance

Fig.5 Maximum Non-Repetitive Peak Forward Surage Current



/ Marking Instructions



M7
****

Note:

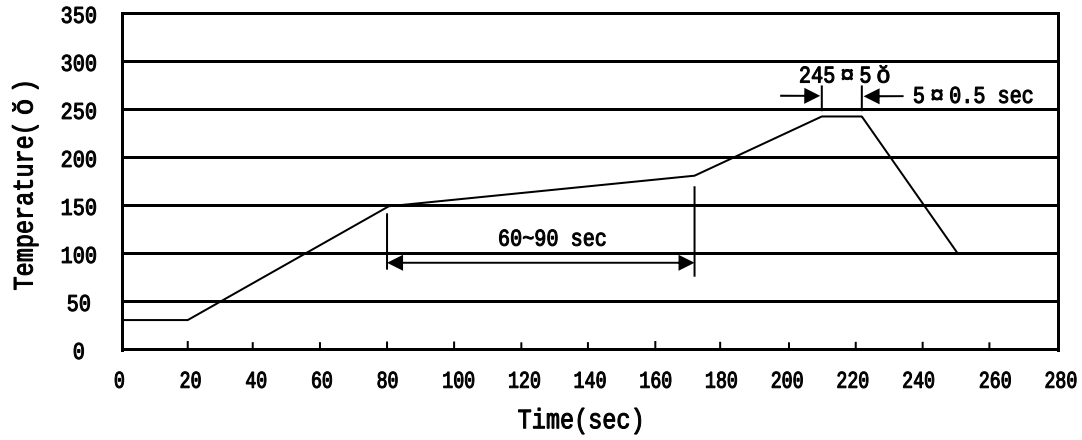
M7 Product Type Code

**** 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)



1		150	180		60	90sec;
2		245±5				5±0.5sec;
3				2	10	/sec.

Note:

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

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

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 mm³)
	Units/Reel /	Reels/Inner Box /	Units/Inner Box /	Inner Boxes/Outer Box /	Units/Outer Box /	Reel	Inner Box	Outer Box
SMAF	3,000	5	15,000	6	90,000	7 ×12	185×180×105	390×385×205

/ Notices