UMW SS12A THRU SS120A

20V-200V 1A

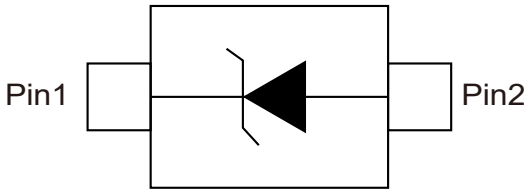
1.Features

- Schottky barrier rectifier
- Guardring protection
- Low forward voltage
- Reverse energy tested
- High current capability
- Extremely low thermal resistance

2.Mechanical Data

- Case: SMA molded plastic body
- Polarity: Color band denotes cathode end
- Mounting position: ANY
- Weight: 0.002 ounces, 0.064 gram

3.Pinning Information



SMA

4.Maximum Ratings And Electrical Characteristics

Parameter		Symbols	SS 12A	SS 13A	SS 14A	SS 15A	SS 16A	SS 18A	SS 110A	SS 115A	SS 120A	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	35	42	56	70	105	140	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	50	60	80	100	150	200	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length (See Fig.1)		$I_{(AV)}$	1									Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	30									Amps
Maximum instantaneous forward voltage at 1.0 A(Note 1)		V_F	0.45	0.55		0.7		0.85			0.95	Volts
Maximum instantaneous reverse current at rated DC blocking voltage	T_A=25°C	I_R	0.5							0.2		mA
	T_A=100°C		10					5		2		
Typical junction capacitance(Note 1)		C_J	110			90						pF
Typical thermal resistance (Note 2)		$R_{\theta JA}$	88									°C/W
Junction temperature range		T_J	-50 to 125					-50 to 150				°C
Storage temperature range		T_{STG}	-50 to 150									°C

Ratings at 25 C ambient temperature unless otherwise specified.

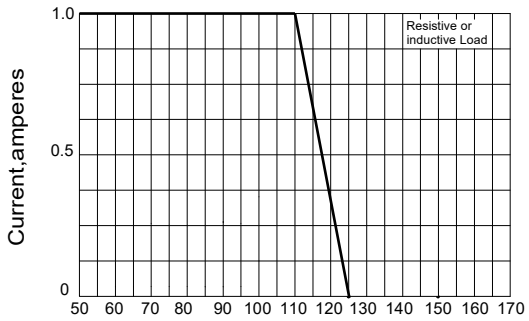
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%

Notes:

1.Measured at 1MHz and applied reverse voltage of 4.0V D.C.

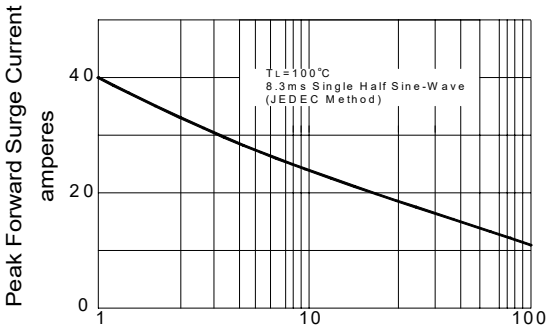
2.P.C.B. mounted with 0.2x0.2”(5.0x5.0mm) copper pad areas.

5.Typical characteristic



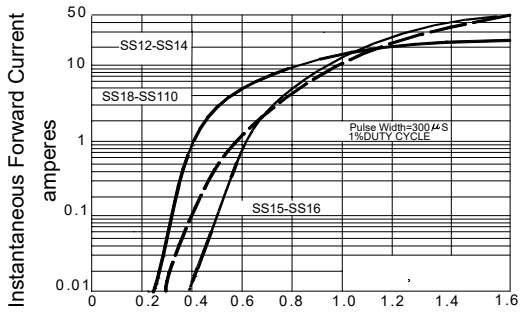
Lead Temperature (°C)

Figure 1: Forward Derating Curve



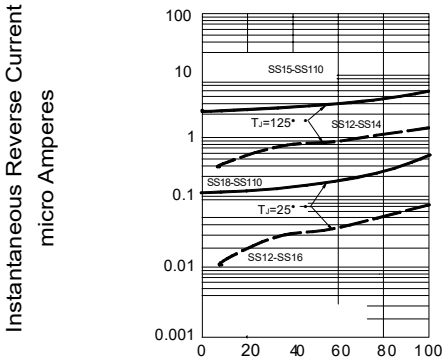
Number of Cycles At 60Hz

Figure 2: Peak Forward Surge Current



Instantaneous Forward Voltage (Volts)

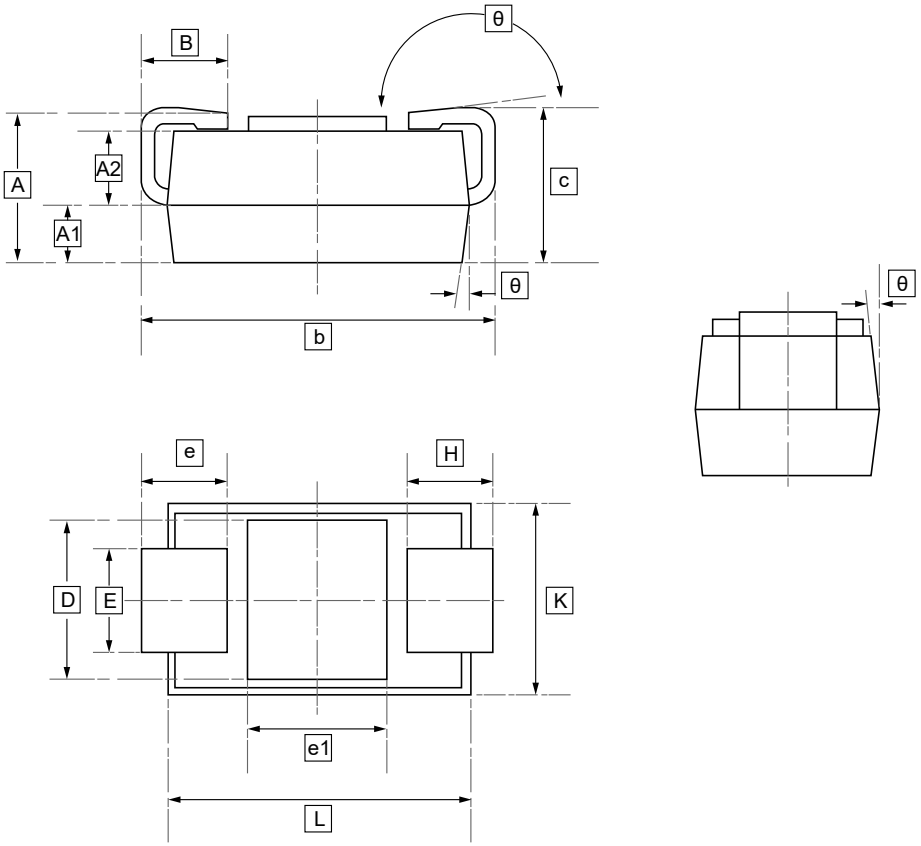
Figure 3: Typical Forwardcharacteristics



Percent of Rated Peak Reverse Voltage%

Figure 4: Typical Reverse Characteristics

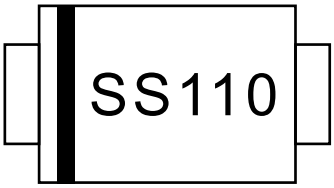
6.SMA Package Outline Dimensions



DIMENSIONS (mm are the original dimensions)

Symbol	A	A1	A2	B	b	c	D	E	e1	L	K	θ
Min	1.95	0.70	0.90	0.78	4.93	1.95	2.0	1.25	1.90	4.20	2.35	0°
Max	2.29	0.90	1.10	1.52	5.28	2.25	2.25	1.65	2.10	4.40	2.79	5°

7 .Ordering information



Order Code	Package	Base QTY	Delivery Mode
UMW SS12A	SMA	2000	Tape and reel
UMW SS13A	SMA	2000	Tape and reel
UMW SS14A	SMA	2000	Tape and reel
UMW SS15A	SMA	2000	Tape and reel
UMW SS16A	SMA	2000	Tape and reel
UMW SS18A	SMA	2000	Tape and reel
UMW SS110A	SMA	2000	Tape and reel
UMW SS115A	SMA	2000	Tape and reel
UMW SS120A	SMA	2000	Tape and reel

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