

**Surface Mount Schottky Barrier Rectifier**
**Reverse Voltage - 20 to 200 V**
**Forward Current - 2.0A**
**Features**

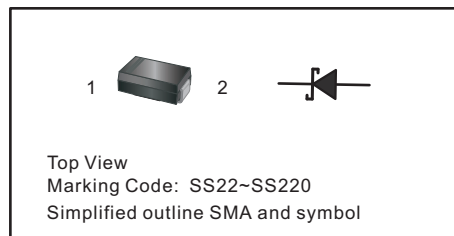
- Metal silicon junction, majority carrier conduction
- For surface mounted applications
- Low power loss, high efficiency
- High forward surge current capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications

**MECHANICAL DATA**

- Case: SMA
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 60mg / 0.0021oz

**PINNING**

PIN	DESCRIPTION
1	Cathode
2	Anode

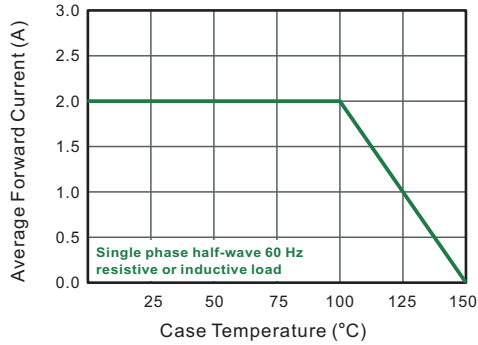
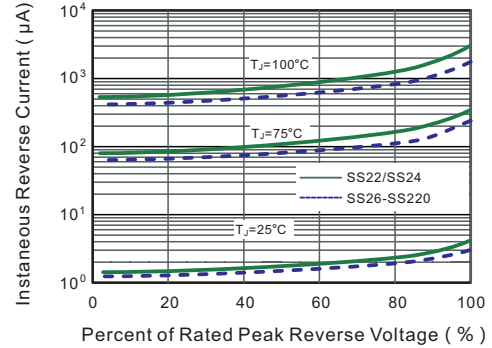
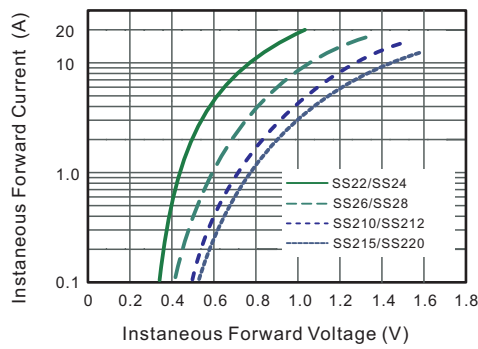
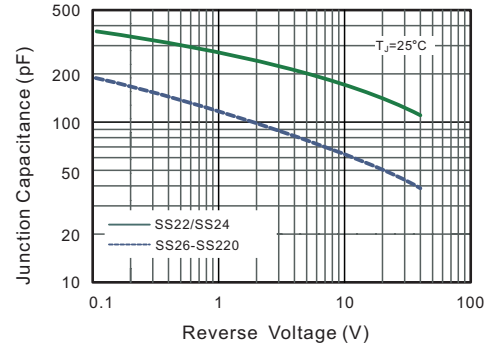
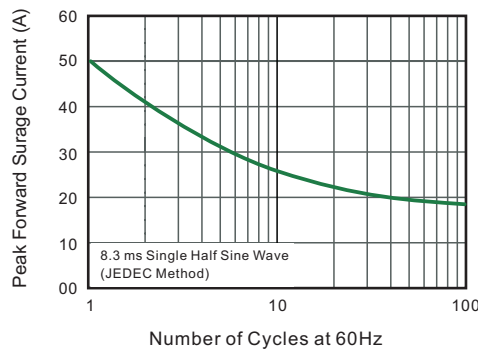
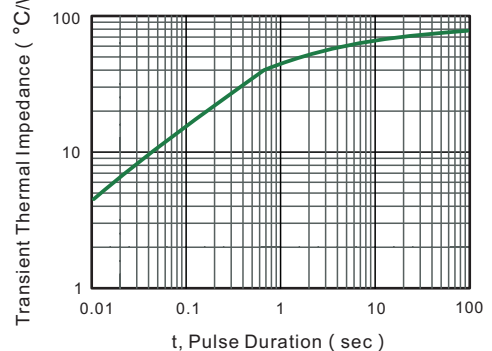

**Absolute Maximum Ratings and Electrical characteristics**

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz resistive or inductive load, for capacitive load, derate by 20 %

Parameter	Symbols	10MQ020N		10MQ060N		10MQ100N		10MQ150N		Units
		SS22	10MQ040N SS24	SS26	10MQ080N SS28	SS210	10MQ120N SS212	SS215	10MQ200N SS220	
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	60	80	100	120	150	200	V
Maximum RMS voltage	$V_{RMS}$	14	28	42	56	70	84	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	20	40	60	80	100	120	150	200	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	2.0								A
Peak Forward Surge Current, 8.3ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	$I_{FSM}$	50								A
Max Instantaneous Forward Voltage at 2 A	$V_F$	0.55		0.70		0.85		0.95		V
Maximum DC Reverse Current $T_a = 25^\circ\text{C}$ at Rated DC Reverse Voltage $T_a = 100^\circ\text{C}$	$I_R$	0.5 5			0.3 3				mA	
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	220		80						pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$	80								°C/W
Operating Junction Temperature Range	$T_j$	-55 ~ +150								°C
Storage Temperature Range	$T_{stg}$	-55 ~ +150								°C

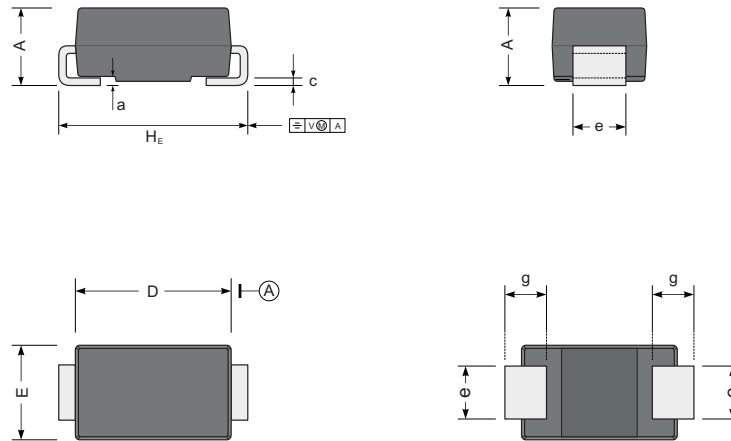
( 1 ) Measured at 1 MHz and applied reverse voltage of 4 V D.C

( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

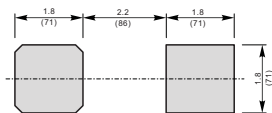
**Fig.1 Forward Current Derating Curve**

**Fig.2 Typical Reverse Characteristics**

**Fig.3 Typical Forward Characteristic**

**Fig.4 Typical Junction Capacitance**

**Fig.5 Maximum Non-Repetitive Peak Forward Surge Current**

**Fig.6- Typical Transient Thermal Impedance**


**PACKAGE OUTLINE**

Plastic surface mounted package; 2 leads



UNIT		A	D	E	H <sub>E</sub>	c	e	g	a
mm	max	2.2	4.5	2.7	5.2	0.31	1.6	1.5	0.3
	min	1.9	4.0	2.3	4.7	0.15	1.3	0.9	
mil	max	87	181	106	205	12	63	59	12
	min	75	157	91	185	6	51	35	

**The recommended mounting pad size**

 Unit :  $\frac{\text{mm}}{\text{mil}}$ 
**Marking**

Type number	Marking code
10MQ020N/SS22	SS22
10MQ040N/SS24	SS24
10MQ060N/SS26	SS26
10MQ080N/SS28	SS28
10MQ100N/SS210	SS210
10MQ120N/SS212	SS212
10MQ150N/SS215	SS215
10MQ200N/SS220	SS220