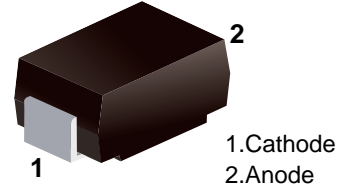


SS12 - SS120

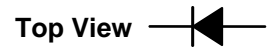
Schottky Diodes

Features

- Reverse Voltage - 20 to 200 V
- Forward Current - 1.0 A
- 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



Simplified outline(SMA)



Absolute Maximum Ratings and Electrical characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

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

Parameter	Symbols	SS12	SS14	SS16	SS18	SS110	SS112	SS115	SS120	Unit	
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		
Maximum DC Blocking Voltage	V_{DC}	20	40	60	80	100	120	150	200		
Maximum Instantaneous Forward Voltage at 1A	V_F	0.55		0.70		0.85		0.90		A	
Maximum Averaged Forward Rectified Current	$I_{F(AV)}$	1									
Peak Forward Surge Current, 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30									
Maximum DC Reverse Current $T_a=25^\circ\text{C}$ at rated DC blocking voltage $T_a=100^\circ\text{C}$	I_R	0.3		0.2		0.1		0.1		mA	
		10		5		2					
Typical Junction Capacitance *1	C_j	110		80						pF	
Typical Thermal Resistance *2	$R_{\theta JA}$	90									°C/W
Operating Junction Temperature Range	T_j	-55 ~ +125									°C
Storage Temperature Range	T_{stg}	-55 ~ +150									

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

* 2 P.C.B. mounted with 2.0" x2.0" (5x5 cm) copper pad areas.

Marking

NO.	SS12	SS14	SS16	SS18	SS110	SS112	SS115	SS120
Marking	SS12	SS14	SS16	SS18	SS110	SS112	SS115	SS120

■ Typical Characteristics

Fig.1 Forward Current Derating Curve

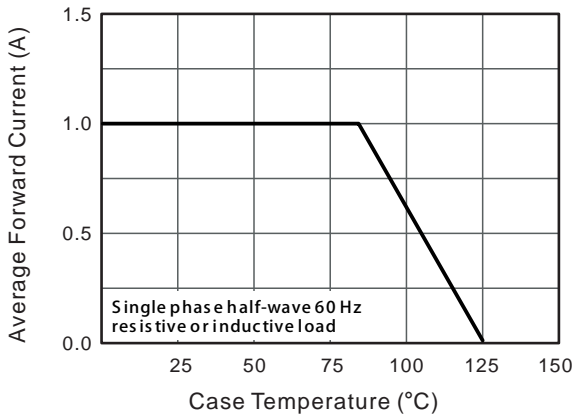


Fig.2 Typical Reverse Characteristics

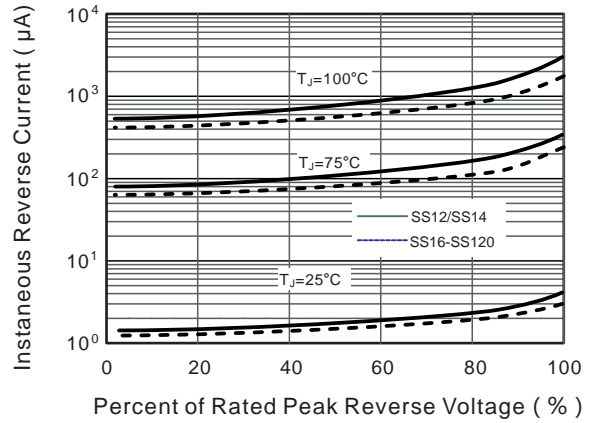


Fig.3 Typical Forward Characteristic

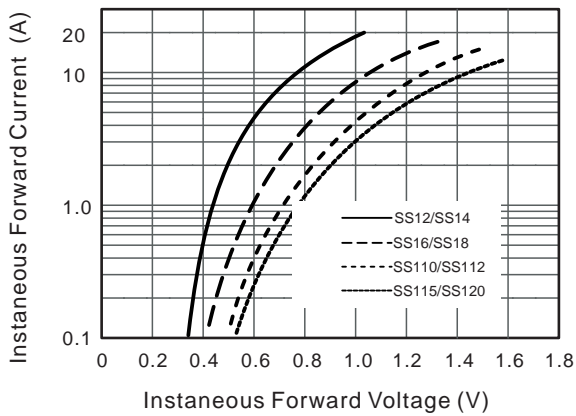


Fig.4 Typical Junction Capacitance

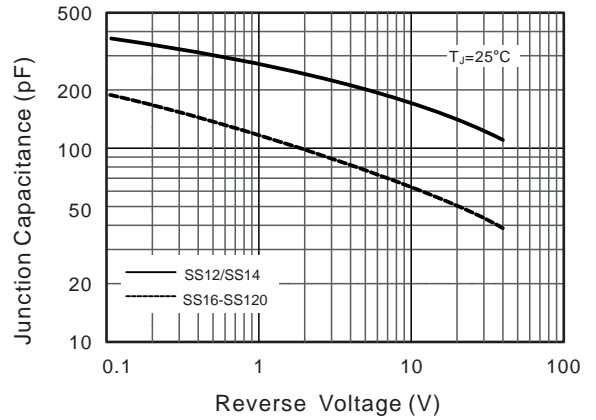


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

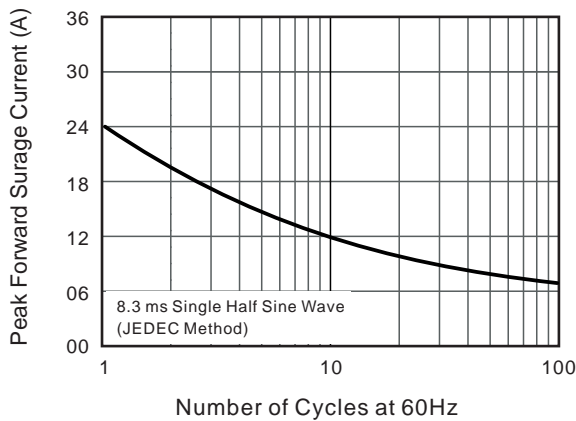
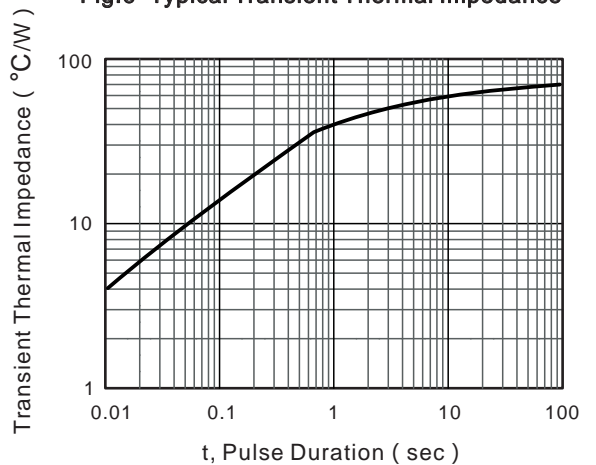
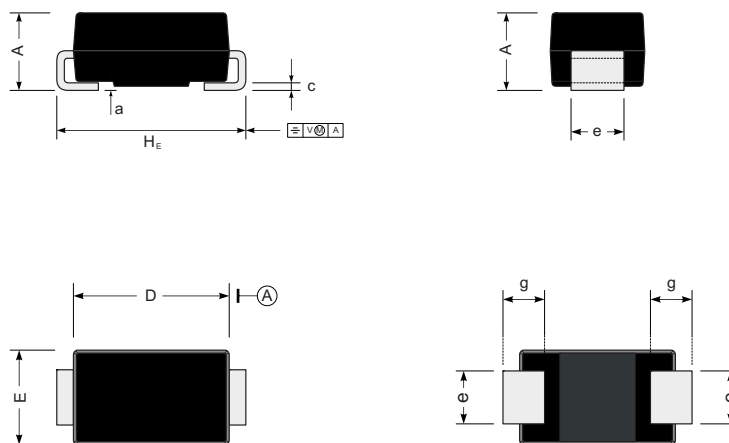


Fig.6- Typical Transient Thermal Impedance



■ SMA



UNIT		A	D	E	H _E	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

