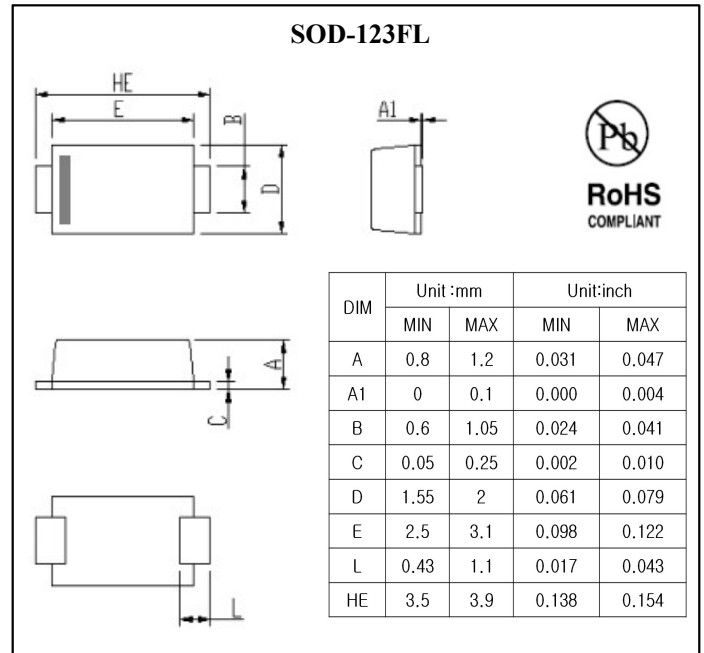
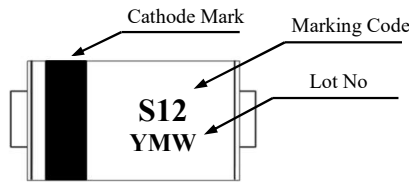


**Surface Mount Schottky Barrier Rectifiers
Reverse Voltage 20 to 200 Volts Forward Current 1.0 Ampere**
Features

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

Mechanical Data

- Case : SOD-123FL
- Terminals : Solderable per MIL-STD-750, Method 2026
- Weight : 0.015gram

Marking

Maximum Ratings & Electrical Characteristics

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

Parameter	Symbol	DS 12W	DS 14W	DS 16W	DS 18W	DS 110W	DS 112W	DS 115W	DS 120W	Unit	Remark
Marking Code		S12	S14	S16	S18	S110	S112	S115	S120		
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 at T_L (See Fig.1)	$I_F(AV)$	1.0								A	
Peak Forward Surge Current 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	40				30				A	
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.55	0.70		0.85		0.95		V	$T_a=25^\circ C$	
Maximum DC Reverse Current at Rated DC Blocking Voltage	I_R	0.3				0.2		0.1		mA	$T_a=25^\circ C$
		10				5.0		2.0		mA	$T_a=100^\circ C$
Typical Junction Capacitance	C_j	110		80				pF	Note 1		
Typical Thermal Resistance	$R_{th(j-a)}$	100								$^\circ C / W$	Note 2
Operation Junction Temperature Range	T_J	-55 to +150								$^\circ C$	
Storage Temperature Range	T_{STG}	-55 to +150								$^\circ C$	

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

Note 2. P.C.B. mounted with 2.0"×2.0" (5mm×5mm) Copper Pad Areas.



Ratings and Characteristics Curves (Ta=25°C unless otherwise noted)

Fig.1 Forward Current Derating Curve

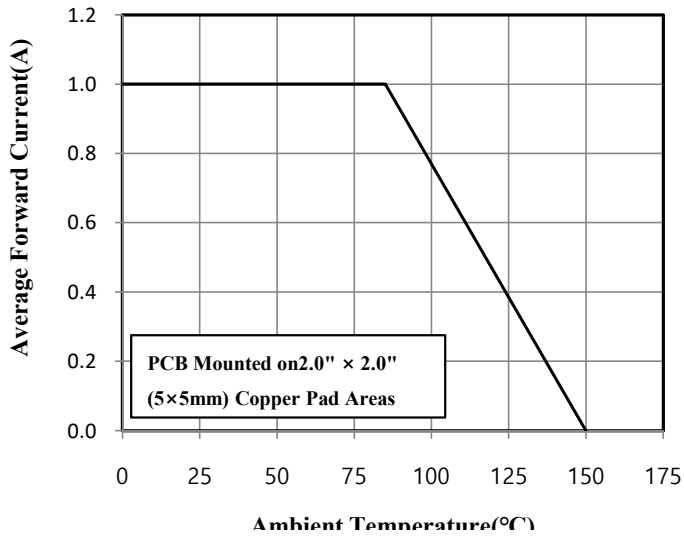


Fig.2 Maximum Non-Repetitive Peak Forward Surge Current

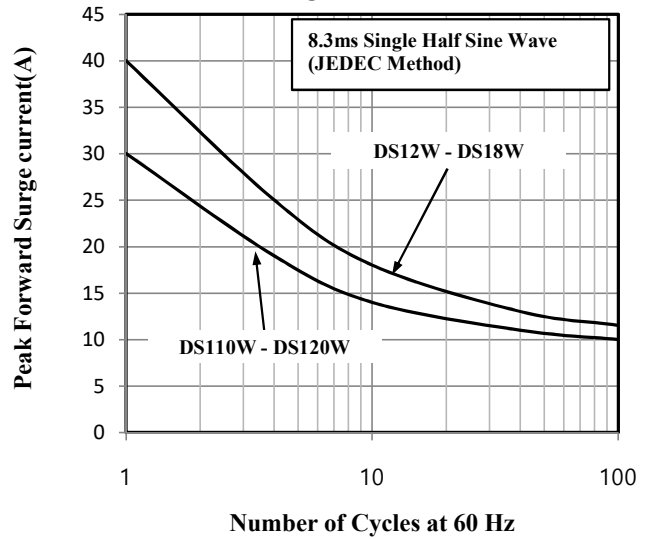


Fig.3 Typical Instantaneous Forward Characteristics

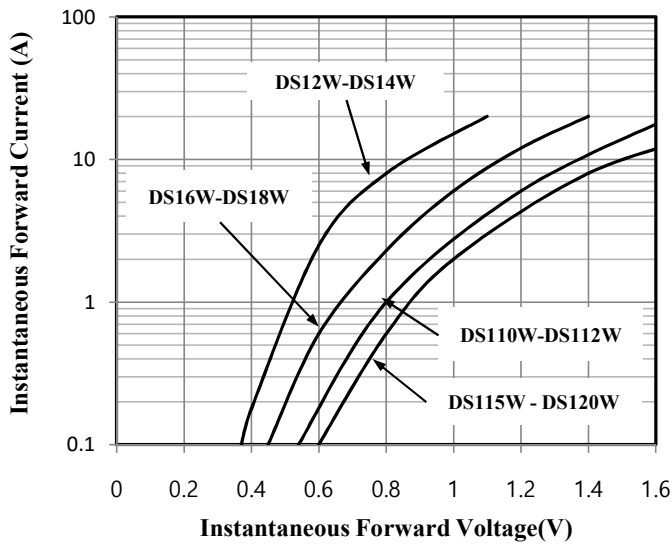


Fig.4 Typical Junction Capacitance

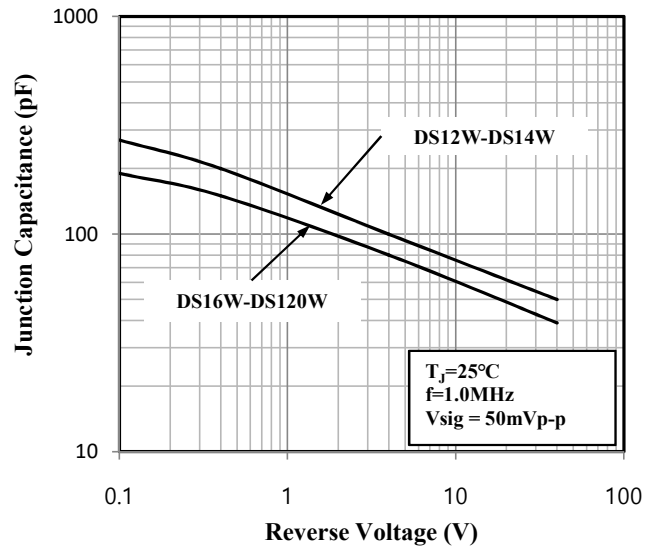


Fig.5 Typical Reverse Characteristics

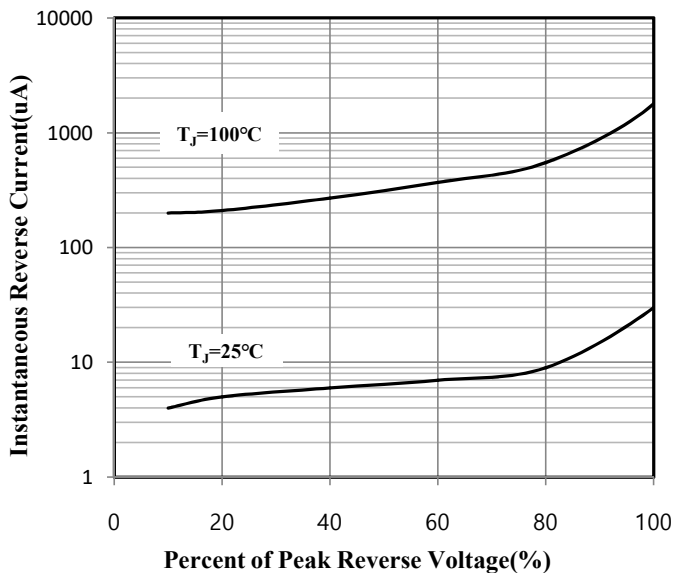


Fig.6 Typical Transient Thermal Characteristics

