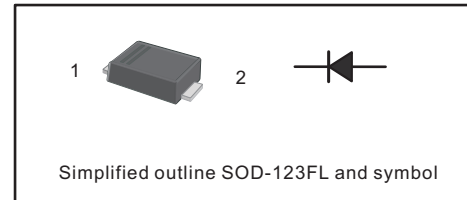


## S12AW THRU S12MW

### Surface Mount General Purpose Silicon Rectifiers

Reverse Voltage - 50 to 1000 V

Forward Current - 1.2 A



### 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 %.

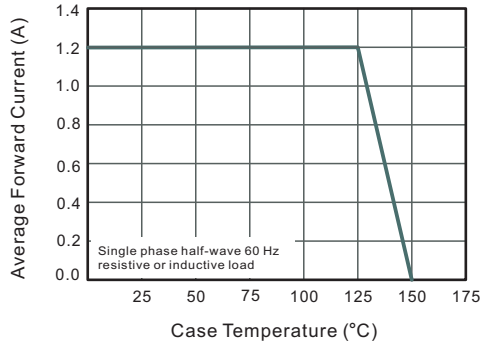
Parameter	Symbols	S12AW	S12BW	S12DW	S12GW	S12JW	S12KW	S12MW	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 125\text{ }^\circ\text{C}$	$I_{F(AV)}$	1.2							A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	35							A
Maximum Instantaneous Forward Voltage at 1.2 A	$V_F$	1.0							V
Maximum DC Reverse Current at Rated DC Blocking Voltage	$I_R$	$T_a = 25\text{ }^\circ\text{C}$							$\mu\text{A}$
		$T_a = 125\text{ }^\circ\text{C}$							
Typical Junction Capacitance <sup>(1)</sup>	$C_j$	18							pF
Typical Thermal Resistance <sup>(2)</sup>	$R_{\theta JA}$ $R_{\theta JC}$	80							$^\circ\text{C/W}$
		25							
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150							$^\circ\text{C}$

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

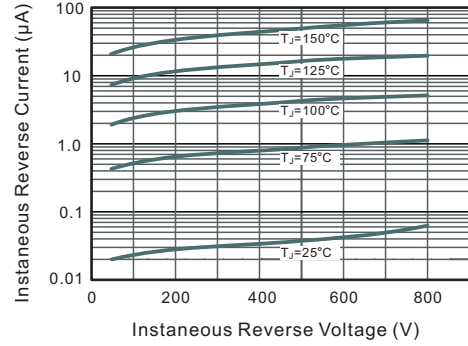
( 2 ) P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

**S12AW THRU S12MW**

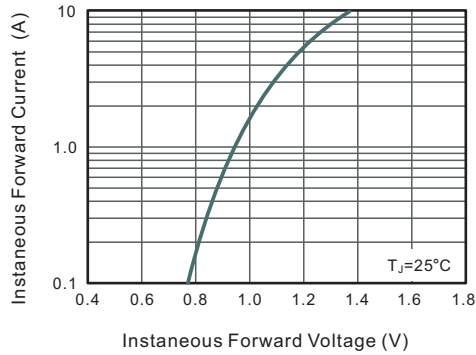
**Fig.1 Forward Current Derating Curve**



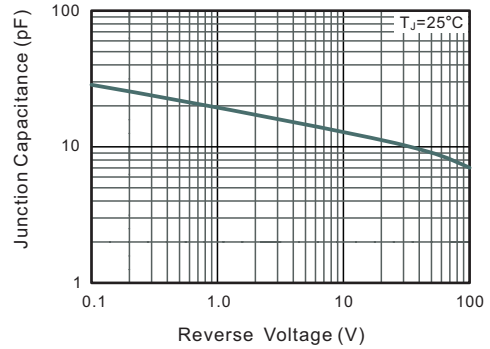
**Fig.2 Typical Instaneous Reverse Characteristics**



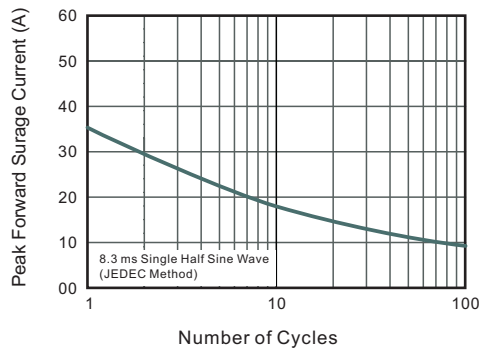
**Fig.3 Typical Forward Characteristic**



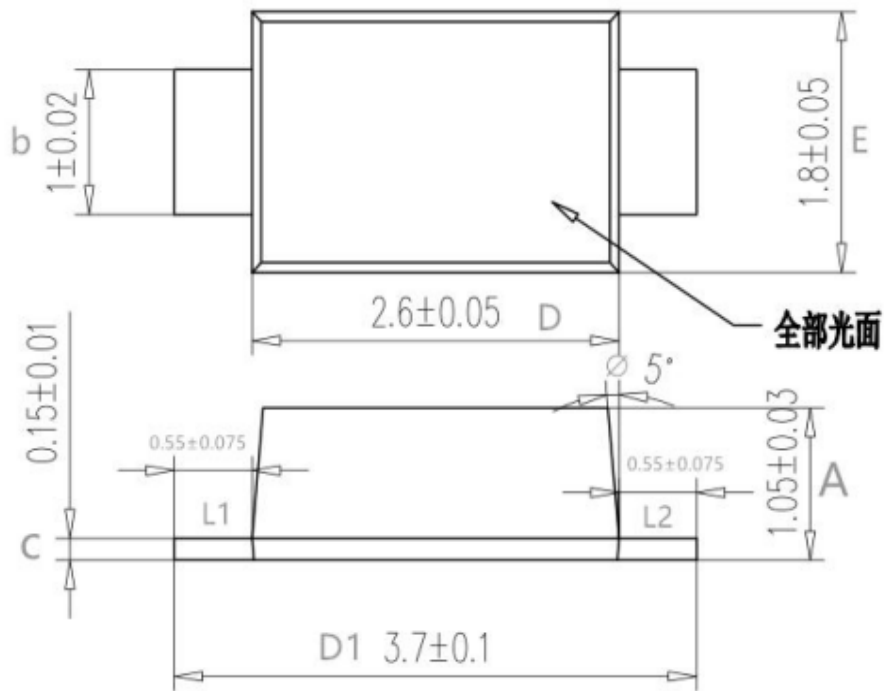
**Fig.4 Typical Junction Capacitance**



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



S12AW THRU S12MW



项目	公制 (mm)	
	MIN	MAX
*A	1.02	1.08
*b	0.98	1.02
*c	0.14	0.16
*D	2.55	2.65
*D1	3.60	3.80
*E	1.75	1.85
*L1	0.475	0.625
*L2	0.475	0.625
$\theta$	$4^\circ$	$6^\circ$
带*为检验尺寸		