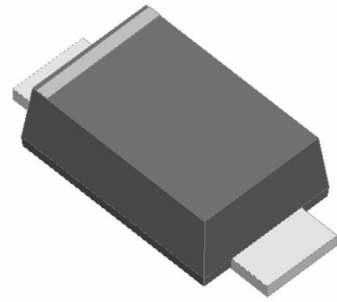


# A1 THRU A7

## General Purpose Rectifier

### Features

- High efficiency
- High current capability
- High reliability
- High surge current capability
- Low power loss
- Glass passivated chip junction
- Solder dip 265 °C max.10 s, per JESD 22-B106

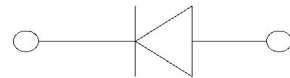


### Typical Applications

For use in general purpose rectification of power supplies, inverters, converters, and freewheeling diodes for consumer, and telecommunication.

### Mechanical Data

- Package:SOD-123
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Polarity:Color band denotes cathode end



### ■ Maximum Ratings (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	A1	A2	A3	A4	A5	A6	A7
Maximum Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	V	50	100	200	400	600	800	1000
Maximum RMS Voltage	V <sub>RMS</sub>	V	35	70	140	280	420	560	700
Maximum DC blocking Voltage	V <sub>DC</sub>	V	50	100	200	400	600	800	1000
Average Forward Current @Half-sine wave, Resistance load, Tc(Fig.1)	I <sub>o</sub>	A	1						
Forward Surge Current (Non-repetitive) @60HZ sine wave, 1 cycle, Ta=25°C	I <sub>FSM</sub>	A	30						
Current squared time @1ms≤t≤8.3ms Ta=25°C, Rating of per diode	I <sup>2</sup> t	A <sup>2</sup> s	3.7						
Thermal Resistance(Typical) @Between junction and case	R <sub>θJ-A</sub>	°C/W	65						
Storage Temperature	T <sub>stg</sub>	°C	-55 ~ +150						
Junction Temperature	T <sub>j</sub>	°C	-55 ~ +150						

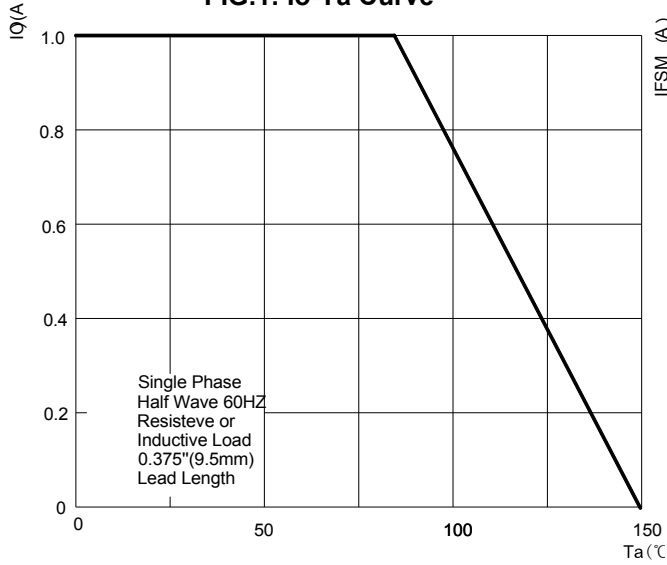
### ■ Electrical Characteristics (Ta=25°C Unless otherwise specified)

PARAMETER	Symbol	Unit	Conditions	A1	A2	A3	A4	A5	A6	A7
Peak Forward Voltage	V <sub>FM</sub>	V	I <sub>F</sub> = 1.0A	1.1						
Peak Reverse Current	I <sub>RRM</sub>	μA	VR = V <sub>DC</sub> @Ta=25°C	2.5						
			VR = V <sub>DC</sub> @Ta=125°C	300						

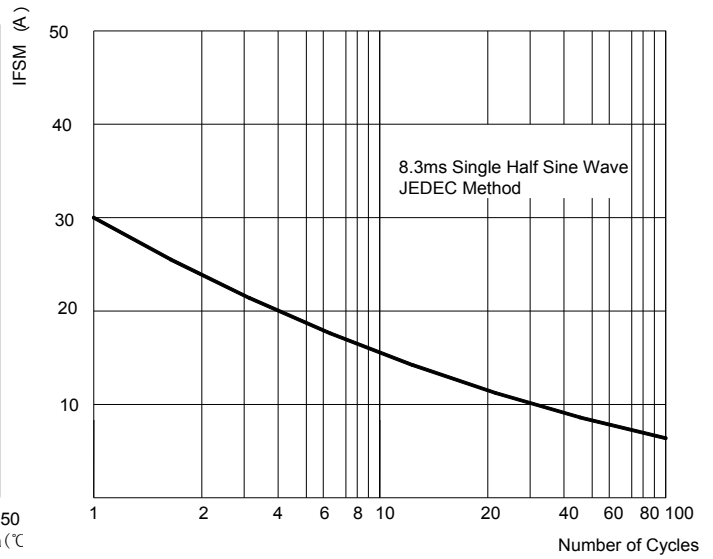


## ■ Characteristics (Typical)

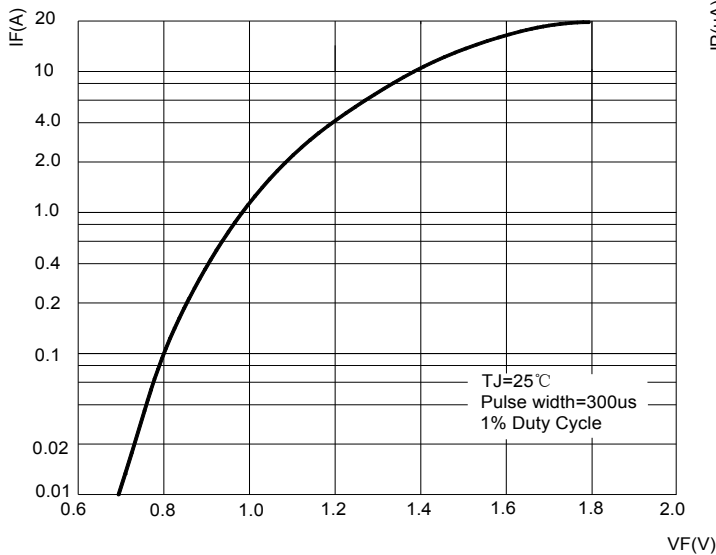
**FIG.1: I<sub>o</sub>-T<sub>a</sub> Curve**



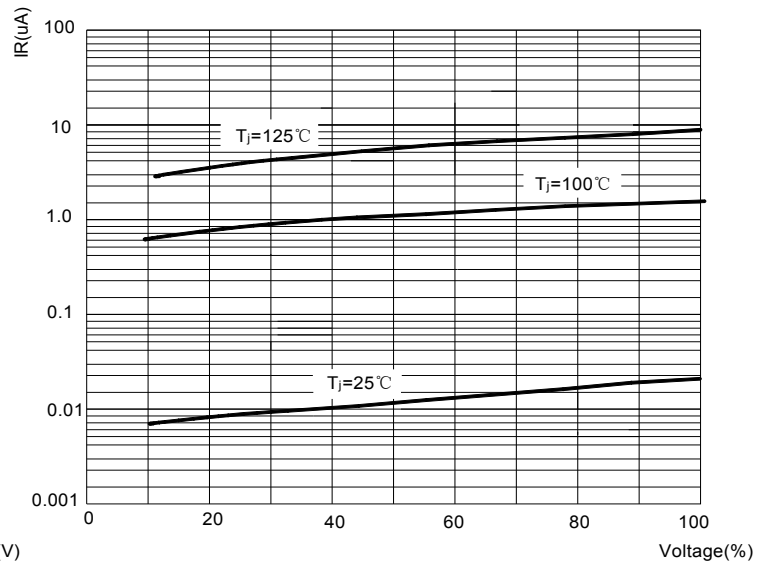
**FIG.2: Forward Surge Current Capability**



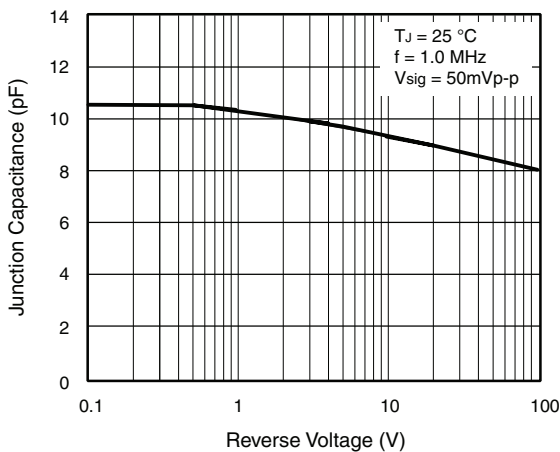
**FIG.3: Forward Voltage**



**FIG.4: Typical Reverse Characteristics**



**FIG.5: Typical Junction Capacitance**

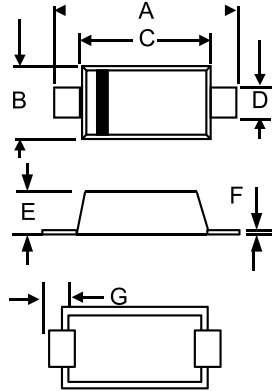


# A1 THRU A7

## Ordering Information (Example)

PREFERED	PACKAGE CODE	MINIMUM PACKAGE(pcs)	INNER BOX QUANTITY(pcs)	OUTER CARTON QUANTITY(pcs)	DELIVERY MODE
A1 THRU A7	SOD-123	3000	15000	150000	7" reel

## Outline Dimensions



SOD-123F				
DIM.	INCHES		MM	
	MIN	MAX	MIN	MAX
A	0.138	0.154	3.50	3.90
B	0.069	0.077	1.75	1.95
C	0.102	0.114	2.60	2.90
D	0.031	0.043	0.80	1.10
E	0.037	0.045	0.95	1.15
F	0.004	0.008	0.10	0.20
G	0.028	0.035	0.70	0.90

