

Technical Data
Data Sheet N1646, Rev. -

1N4001FL THRU 1N4007FL General Purpose Plastic Rectifier

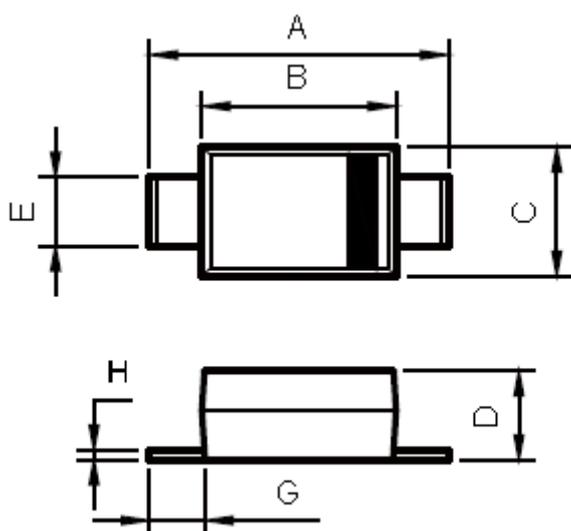
Features

- Low forward voltage drop
- Low leakage current
- High forward surge capability
- Solder dip 260 °C, 40 s
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC

Mechanical Data

- Case: SOD-123FL Molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.018 grams

Mechanical Dimensions (In mm/Inches)

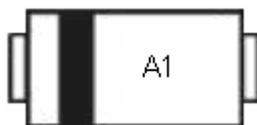


DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	0.140	0.152	3.55	3.85	
B	0.102	0.114	2.60	2.90	
C	0.069	0.077	1.75	1.95	
D	0.047	0.055	1.20	1.40	
E	0.028	0.047	0.70	1.20	
G	0.010	—	0.25	—	

SOD-123FL

Technical Data
Data Sheet N1646, Rev. -

Marking Diagram:



A1 = Marking Code

Cautions : Molding resin
Epoxy resin UL: 94V-0

Ordering Information:

Device	Package	Shipping
1N4001FL THRU 1N4007FL	SOD-123FL	3000pcs / reel

For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specification.

Maximum Ratings and Electrical Characteristics @ $T_A=25^\circ\text{C}$ unless otherwise specified

Characteristic	Symbol	1N4001 FL	1N4002 FL	1N4003 FL	1N4004 FL	1N4005 FL	1N4006 FL	1N4007 FL	Unit
Marking code		A1	A2	A3	A4	A5	A6	A7	
Maximum repetitive peak reverse voltage Maximum DC blocking voltage	V_{RRM} V_{DC}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum average forward rectified current @ $T_A = 75^\circ\text{C}$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							A
Maximum instantaneous forward voltage at 1.0A	V_F	1.1							V
Maximum DC reverse current @ $T_A = 25^\circ\text{C}$ at rated DC blocking voltage @ $T_A = 100^\circ\text{C}$	I_R	5.0 50.0							μA
Typical Junction Capacitance (Note 1)	C_J	15.0							pF
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	75.0							$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							$^\circ\text{C}$

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted.

**Technical Data
Data Sheet N1646, Rev. -**

FIG. 1- FORWARD CURRENT DERATING CURVE

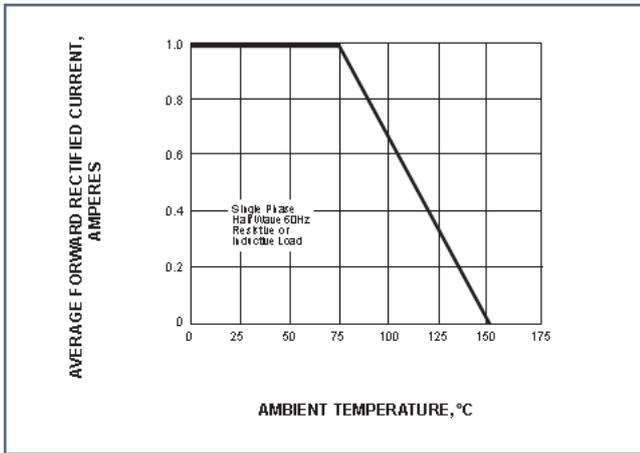


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

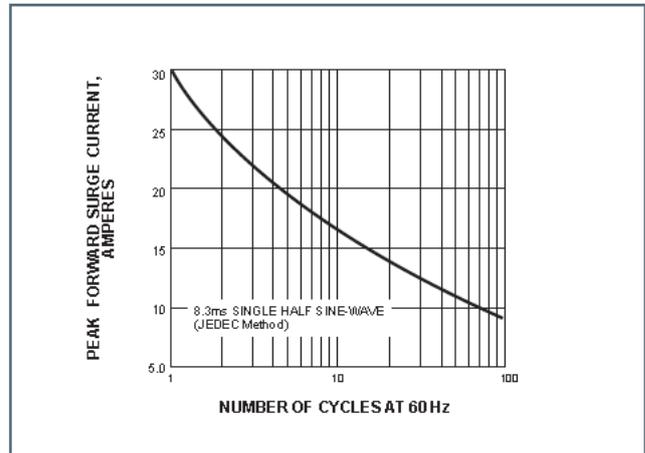


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

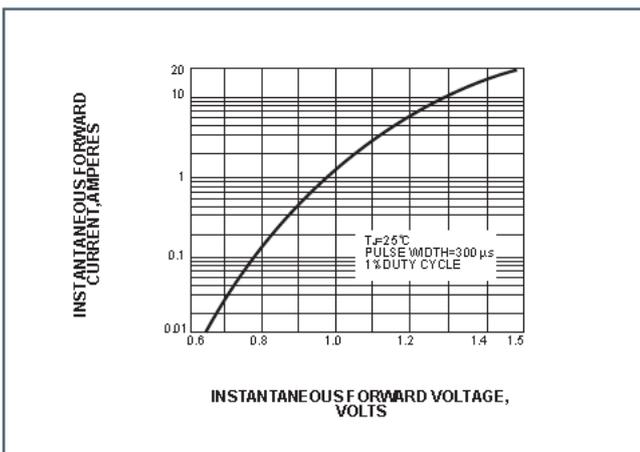
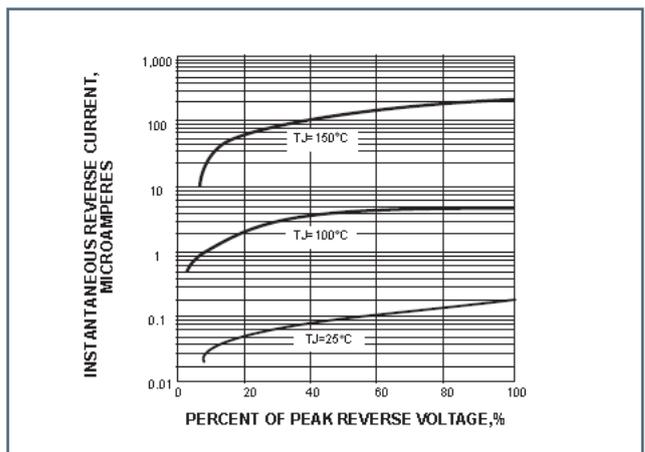


FIG. 4-TYPICAL REVERSE CHARACTERISTICS





1N4001FL
THRU
1N4007FL

Technical Data
Data Sheet N1646, Rev. -

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