New Jersey Semi-Conductor Products, Inc.

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1N4139-1N4146

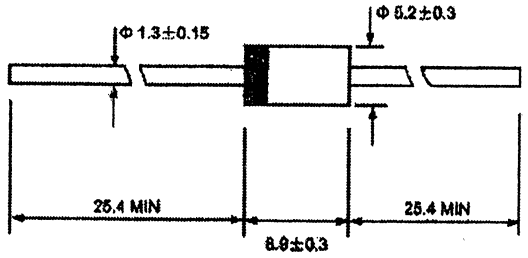
Plastic Silicon Rectifiers

VOLTAGE RANGE: 50 --- 1200 V
CURRENT: 3.0 A

DO - 27

Features

- ◇ Low cost
- ◇ Diffused junction
- ◇ Low leakage
- ◇ Low forward voltage drop
- ◇ High current capability
- ◇ Easily cleaned with Free, Alcohol, Isopropanol and similar solvents



Dimensions in millimeters

Mechanical Data

- ◇ Case: JEDEC DO-27,molded plastic
- ◇ Terminals: Axial lead ,solderable MIL- STD-202,Method 208
- ◇ Polarity: Color band denotes cathode
- ◇ Weight: 0.041 ounces,1.15 grams
- ◇ Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwise specified.

Single phase,half wave,50 Hz,resistive or inductive load. For capacitive load,derate by 20%.

		1N 4139	1N 4140	1N 4141	1N 4142	1N 4143	1N 4144	1N 4145	1N 4146	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	1200	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	840	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	1200	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	3.0								A
Peak forward surge current 10ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	300.0								A
Maximum instantaneous forward voltage @ 3.0 A	V_F	1.0								V
Maximum reverse current @T_A=25℃	I_R	10.0								μA
at rated DC blocking voltage @T_A=100℃		100.0								
Typical junction capacitance (Note1)	C_J	35								pF
Typical thermal resistance (Note2)	$R_{\theta JA}$	20								℃/W
Operating junction temperature range	T_J	- 55 ---- + 150								℃
Storage temperature range	T_{STG}	- 55 ---- + 150								℃

Note: 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Thermal resistance from junction to ambient.