

## 1N4148

### AXIAL Small Signal Diodes

#### Features

- Silicon Epitaxial Planar Diode
- Fast switching diodes
- RoHS compliant package

#### Mechanical Data

- Case: DO-35 Glass
- Case Weight: approx. 0.13 g

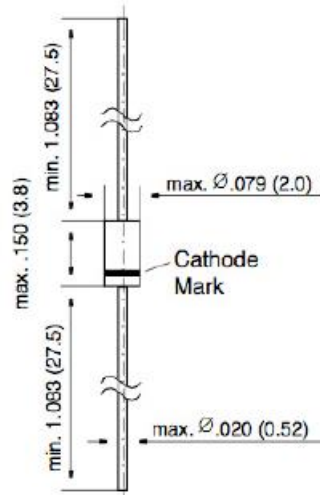
#### Packing & Order Information

1,250/T



**RoHS  
COMPLIANT**

#### DO-35



Graphic symbol



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

#### Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified

Parameter	Symbol	Value	Unit
Reverse voltage	$V_R$	75	V
Peak reverse voltage	$V_{RM}$	100	V
Rectified current (average) Half wave rectification with resist load at $T_{amb}=25^\circ\text{C}$ and $f>50\text{Hz}$	$I_o$	150	mA
Surge forward current at $t<1\text{ s}$ and $T_j = 25^\circ\text{C}$	$I_{FSM}$	500	mA
Power dissipation at $T_{amb}=25^\circ\text{C}$	$P_{tot}$	500	mW
Junction temperature	$T_j$	175	°C
Storage temperature range	$T_s$	-65 to +175	°C

\*Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature (DO-35)

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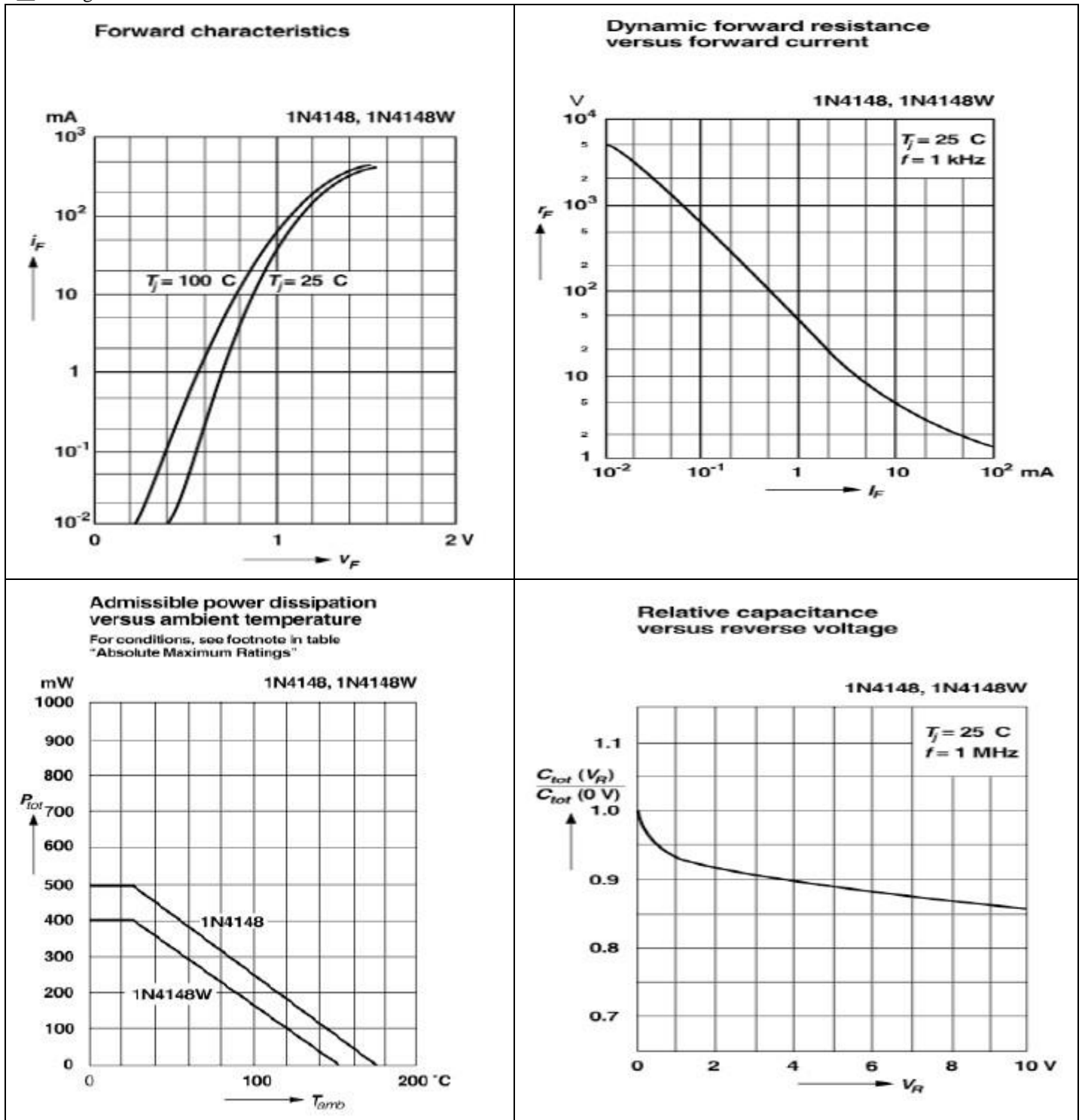
Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage at $I_F=10\text{ mA}$	$V_F$			1	V
Leakage current at $V_R = 20\text{ V}$	$I_R$			25	V
at $V_R = 75\text{ V}$	$I_R$			5	
at $V_R = 20\text{ V}$ , $T_j = 150^\circ\text{C}$	$I_R$			50	
Capacitance at $V_F=V_R=0\text{ V}$	$C_{tot}$			4	mA
Voltage rise when switching on tested with 50 mA pulses $t_p=0.1\mu\text{s}$ , rise time $<30\text{ns}$ $F_p=5\text{ to }100\text{kHz}$	$V_{FR}$			2.5	mA
Reverse recovery time From $I_F=10\text{ mA}$ to $I_R=1\text{ Ma}$ $V_R=6\text{ V}$ , $R_L=100\Omega$	$t_{rr}$			4	mW
Thermal resistance junction to ambient air	$R_{thja}$			350	$^\circ\text{C}$
Rectification efficiency at $f=100\text{Mhz}$ $V_{RF}=2\text{ V}$	$\eta_v$	0.45			$^\circ\text{C}$

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#### ■ Ratings and Characteristic Curves

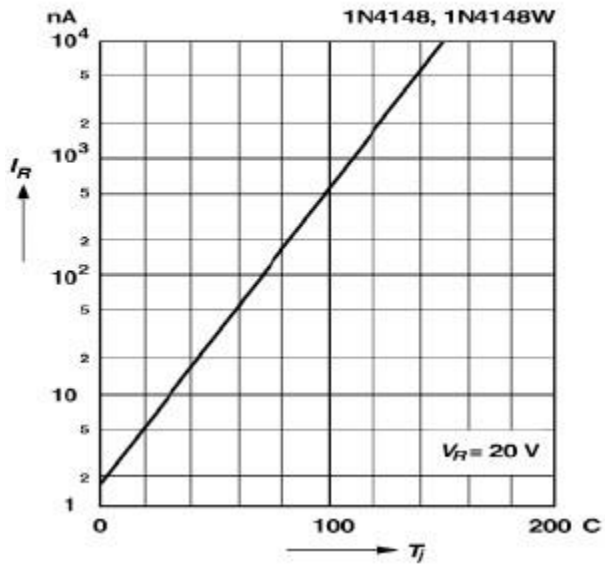


#### ■ Ratings and Characteristic Curves

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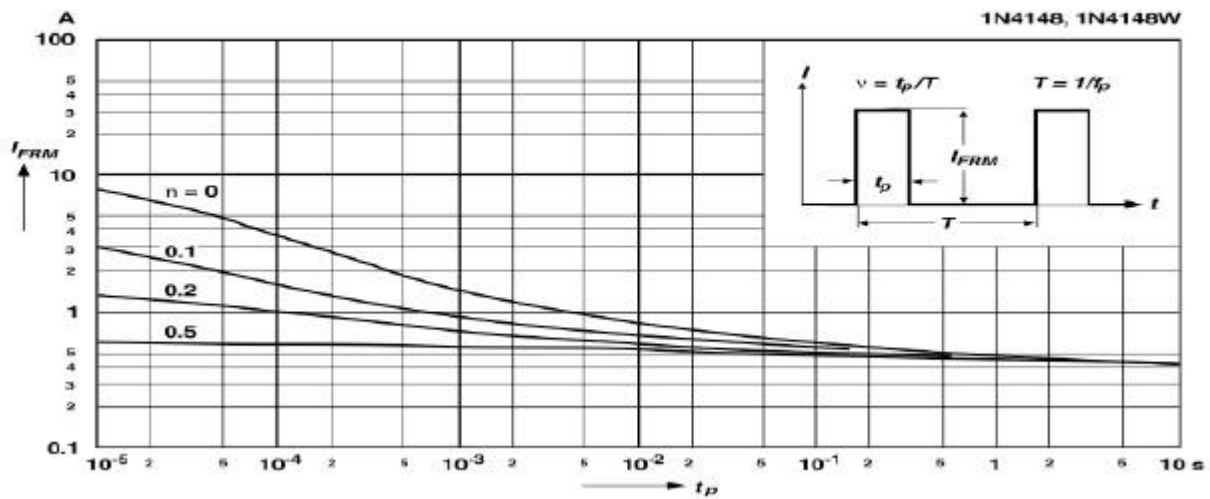
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Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

For conditions, see footnote in table "Absolute Maximum Ratings"



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#### Disclaimer

ALL PRODUCT, PRODUCT SPECIFICATIONS AND DATA ARE SUBJECT TO CHANGE

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