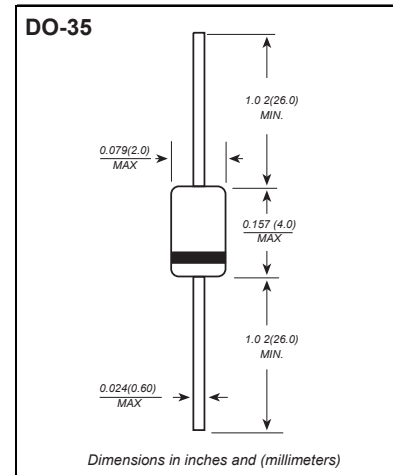


## Fast Switching Surface Mount Diodes

### 1N4148

#### Features

- Fast Switching Speed
- General Purpose Rectification
- Silicon Epitaxial Planar Construction



#### Absolute Maximum Ratings Ta = 25

Parameter	Symbol	Rating	Unit
Non-Repetitive Peak Reverse Voltage	V <sub>RM</sub>	100	V
Peak Repetitive Reverse Voltage	V <sub>RRM</sub>	75	V
Working Peak Reverse Voltage	V <sub>RWM</sub>		
DC Blocking Voltage	V <sub>R</sub>		
RMS Reverse Voltage	V <sub>R(RMS)</sub>	53	V
Forward Continuous Current *	I <sub>FM</sub>	300	mA
Average Rectified Output Current *	I <sub>O</sub>	150	mA
Non-Repetitive Peak Forward Surge Current @ t = 1.0μs @ t = 1.0s	I <sub>FSM</sub>	2.0	A
		1.0	A
Power Dissipation * Derate Above 25	P <sub>D</sub>	500	mW
		1.68	mW/
Thermal Resistance Junction to Ambient Air *	R <sub>θJA</sub>	300	K/W
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>STG</sub>	-65 to +175	

\* Valid provided that device terminals are kept at ambient temperature.

#### Electrical Characteristics Ta = 25

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Forward voltage	V <sub>F</sub>	I <sub>F</sub> =10mA			1.0	V
Peak Reverse Current	I <sub>R</sub>	V <sub>R</sub> = 75 V			5	μA
		V <sub>R</sub> = 20 V, T <sub>J</sub> = 150			30	μA
		V <sub>R</sub> = 20V			25	nA
Capacitance	C <sub>J</sub>	V <sub>R</sub> = 0, f=1.0MHz			4.0	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> = 10 mA I <sub>R</sub> = 1 mA, V <sub>R</sub> = 6 V, R <sub>L</sub> = 100 Ω			4.0	ns

#### ■ Marking

Marking	1N4148
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# 1N4148

■ Typical Characteristics  $T_{amb} = 25^{\circ}C$ , unless otherwise specified

