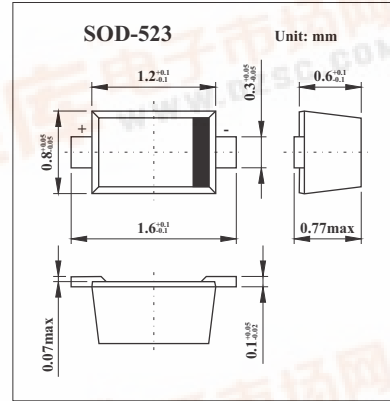


SMD Type Diodes

Surface Mount Fast Switching Diode  
1N4148S

■ Features

- Fast Switching Speed
- For General Purpose Switching Applications
- High Conductance



■ Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Non-repetitive peak reverse voltage	V <sub>RM</sub>	100	V
Peak repetitive reverse voltage	V <sub>R(RM)</sub>		
Working peak reverse voltage	V <sub>R(WM)</sub>	75	V
DC blocking voltage	V <sub>R</sub>		
RMS reverse voltage	V <sub>R(RMS)</sub>	53	V
Average rectified output current	I <sub>O</sub>	150	mA
Forward continuous current	I <sub>FM</sub>	300	mA
Non-repetitive peak forward surge current @ t = 1.0s	I <sub>FSM</sub>	1.0	A
@ t = 1.0 μs		2.0	
Power dissipation *	P <sub>D</sub>	150	mW
Typical thermal resistance, junction to ambient air*	R <sub>θJA</sub>	833	°C/W
Operating and storage temperature range	T <sub>j</sub> , T <sub>stg</sub>	-65 to +150	°C

\* Part mounted on FR-4 PC board with recommended pad layout,

■ Electrical Characteristics Ta = 25°C

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Forward voltage	V <sub>FM</sub>	I <sub>F</sub> = 10mA			0.715	V
		I <sub>F</sub> = 10mA			0.855	
		I <sub>F</sub> = 50mA			1.0	
		I <sub>F</sub> = 150mA			1.25	
Peak reverse current	I <sub>RM</sub>	V <sub>R</sub> = 75V			1.0	μ A
		V <sub>R</sub> = 75V, T <sub>j</sub> = 150°C			50	
		V <sub>R</sub> = 25V, T <sub>j</sub> = 150°C			30	nA
		V <sub>R</sub> = 20V			25	
Capacitance	C <sub>T</sub>	V <sub>R</sub> = 0, f = 1.0MHz			2.0	pF
Reverse recovery time	t <sub>rr</sub>	I <sub>F</sub> = I <sub>R</sub> = 10mA, I <sub>rr</sub> = 0.1 × I <sub>R</sub> , R <sub>L</sub> = 100 Ω			4.0	ns

