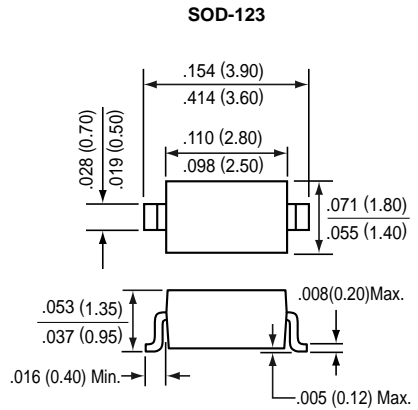


## SURFACE MOUNT SWITCHING DIODE

Halogen-free type

Lead free product

# 1N4148WGH



\*Dimensions in inches and (millimeters)

### Features

- \* Fast Switching Speed.
- \* Electrically Identical to Standard JEDEC
- \* High Conductance
- \* Surface Mount Package Ideally Suited for Automatic Insertion.

### Mechanical Data

Case : SOD-123 plastic case.

Terminals : Solderable per MIL-STD-202, Method 208

Standard packaging : 8mm tape

Weight : approximately 0.01g

MAXIMUM RATINGS ( At TA = 25°C unless otherwise noted )

RATINGS	Symbol	1N4148WGH	UNITS
Reverse Voltage	V <sub>R</sub>	75	Volts
Peak Reverse Voltage	V <sub>RM</sub>	100	Volts
Maximum RMS Voltage	V <sub>RMS</sub>	50	Volts
Maximum DC Blocking Voltage	V <sub>DC</sub>	75	Volts
Maximum Average Forward Current at Ta = 25°C	I <sub>AV</sub>	150	mA
Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load ( JEDEC method )	I <sub>FSM</sub>	2	Amps
Typical Junction Capacitance (NOTES 1)	C <sub>J</sub>	4	pF
Maximum Reverse Recovery (NOTES 2)	T <sub>RR</sub>	4	nSec
Maximum Thermal Resistance	R <sub>θJA</sub>	450	°C / W
Storage Temperature Range	T <sub>J</sub>	-55 to +125	°C

ELECTRICAL CHARACTERISTICS ( At TA = 25°C unless otherwise noted )

CHARACTERISTICS	Symbol	1N4148WGH	UNITS
Maximum Instantaneous Forward Voltage at 0.05 A	V <sub>F</sub>	1.0	Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage T <sub>J</sub> = 25°C	I <sub>R</sub>	2.5	uAmps
Power Dissipation Derate Above 25°C	P <sub>tot</sub>	410	mW

NOTES : 1. C<sub>J</sub> at V<sub>R</sub> = 0, f = 1MHz

2. From I<sub>F</sub> = 10mA to I<sub>R</sub> = 1mA, V<sub>R</sub> = 6 Volts, R<sub>L</sub> = 100 Ω

# RATINGS AND CHARACTERISTIC CURVES 1N4148WGH

FIG.1 - FORWARD CHARACTERISTICS

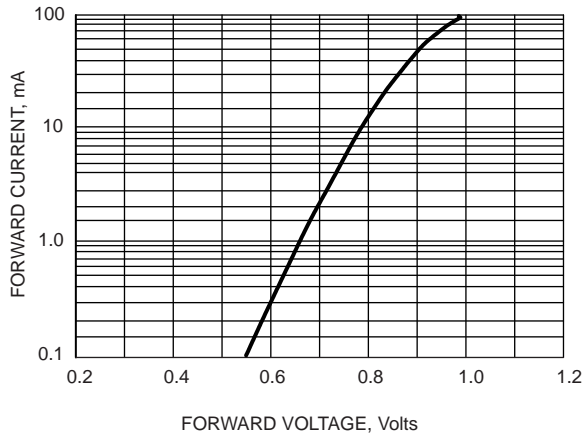


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

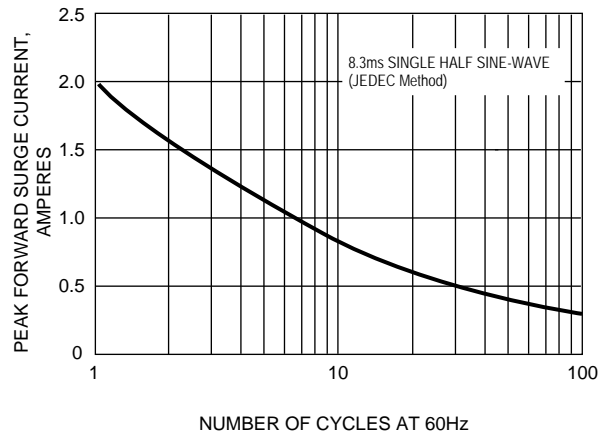


FIG.3 - TYPICAL JUNCTION CAPACITANCE

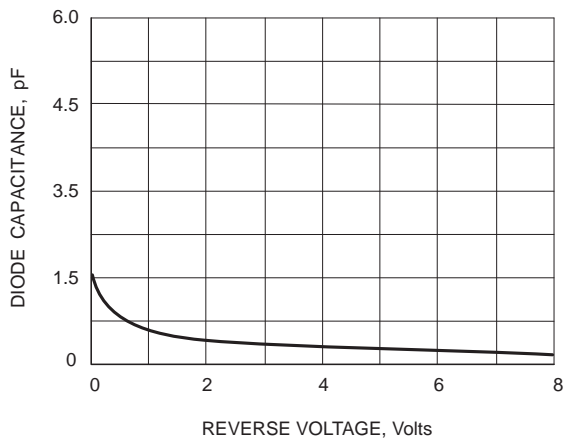


FIG.4 - REVERSE CHARACTERISTICS

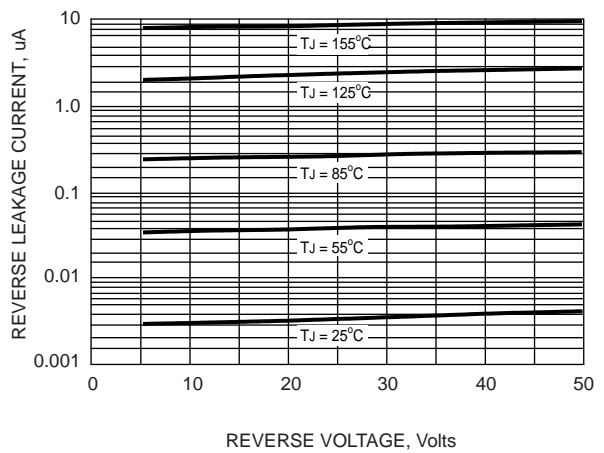


FIG.5 - RECTIFICATION EFFICIENCY MEASUREMENT CIRCUIT

