1N4148S

SMALL SIGNAL DIODE

VOLTAGE: 100V **CURRENT: 150mA**

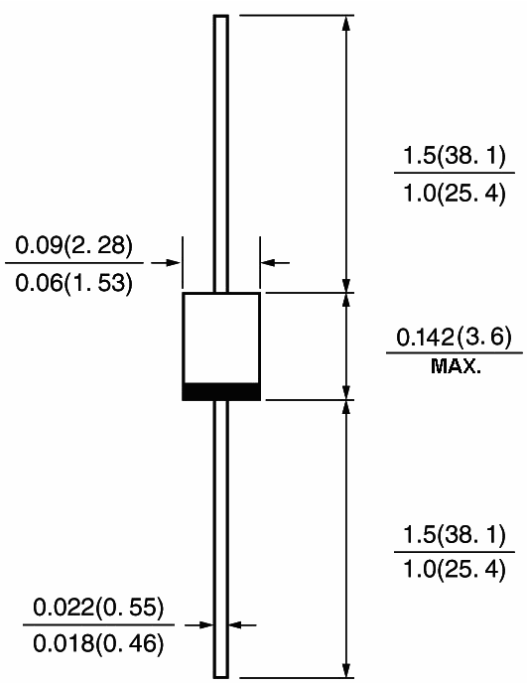
FEATURE

Silicon Single Junction Diode
Fast switching Diode

MECHANICAL DATA

Case: DO-35 Glass case
Polarity: color band denotes cathode
Mounting position: any
Weight: approx. 0.12g

DO-35



Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(single-phase, half-wave, 60HZ, resistive or inductive load rating at 25°C, unless otherwise stated)

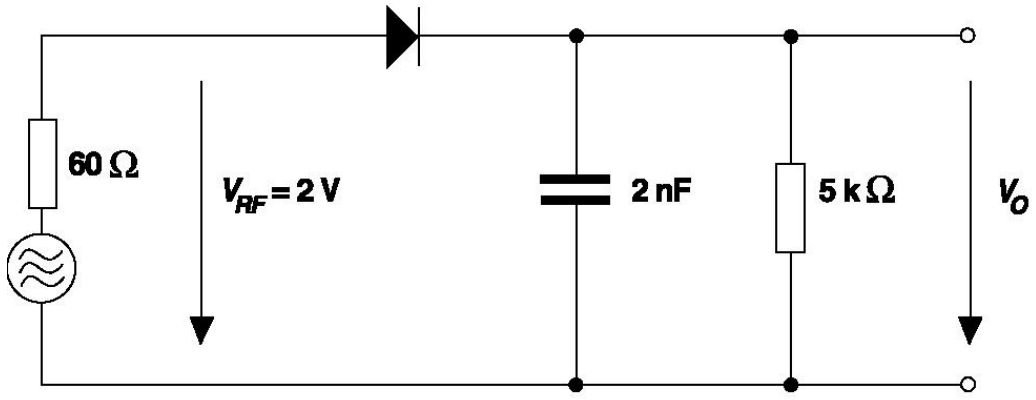
Parameter	Symbol	Limit	Units
Recurrent Peak Reverse Voltage	Vrm	100	V
Recurrent Voltage	Vr	75	V
Average Forward Rectified Current Half-Wave Rectification With Resistive Load at Tamp=25°C	If(av)	150	mA
Peak Forward Surge Current T<1.0ms and Tj=25°C	Ifsm	500	mA
Power dissipation at tamp=25°C	Ptot	500	mW
Typical Thermal Resistance (Note 1)	Rth(ja)	350	°C /W
Junction Temperature	Tj	175	°C
Storage Temperature	Tstg	-65 ~ +175	°C

Note:
1. Valid provide that leads at a distance of 8mm from case are kept at ambient temperature

Electrical Characteristics(TJ = 25 ℃ unless otherwise noted)

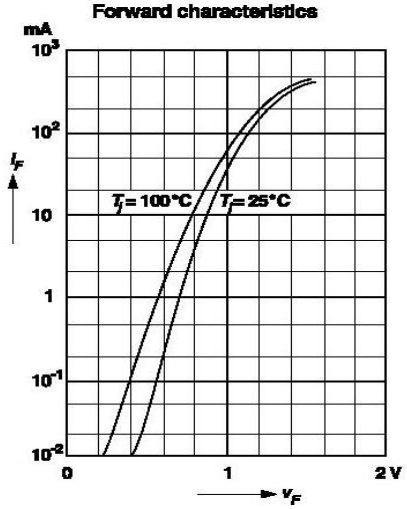
parameter	symbol	Test Condition	min	typ	max	unit
Reverse Breakdown Voltage	Vbr	Ir=100uA	100			V
Forward Voltage	Vf	If=10mA			1.0V	V
Leakage Current	Ir	Vr=20V Vr=75V Vr=20V,Tj=150℃			25 5.0 50	nA uA uA
Capacitance	Ctot	Vf=Vr=0V			4	pF
Voltage Rise when Switching ON (tested with 50mA Pulses)	Vfr	Tp=0.1uS,Rise Time<30nS Fp=5 to100KHZ			2.5	nS
Reverse Recovery Time	Trr	If=10mA,Ir=1 mA Vr=6v,Rl=100Ω			4	nS

Rectification Efficiency Measurement Circuit

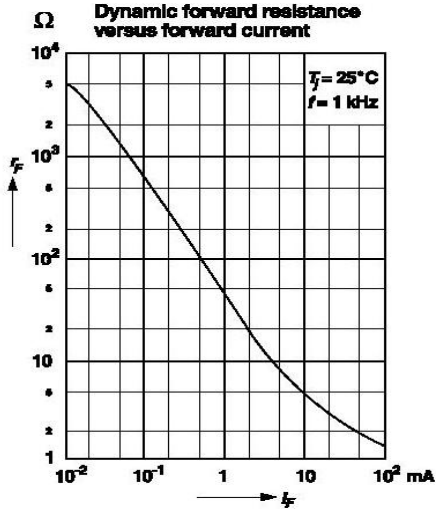


RATINGS AND CHARACTERISTIC CURVES 1N4148S

Forward characteristics

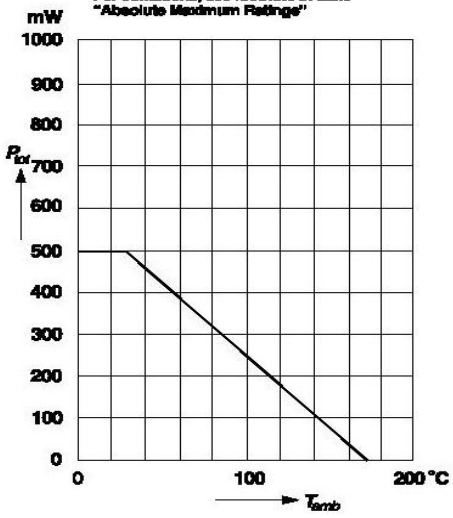


Dynamic forward resistance versus forward current

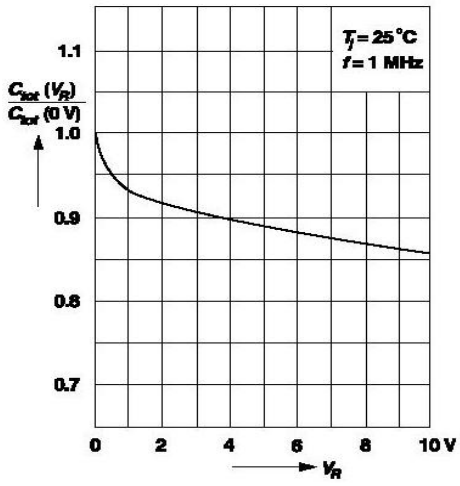


Admissible power dissipation versus ambient temperature

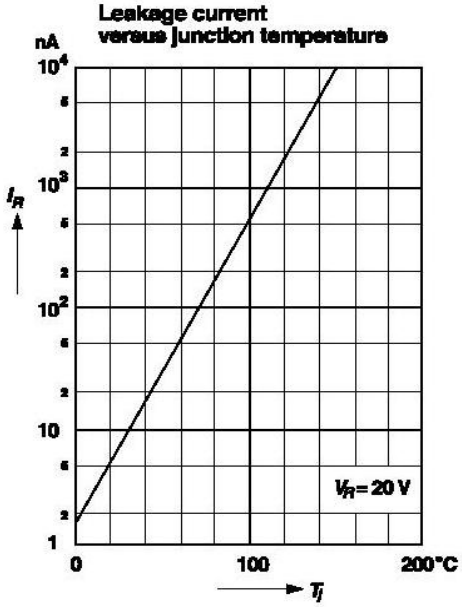
For conditions, see footnote in table "Absolute Maximum Ratings"



Relative capacitance versus reverse voltage

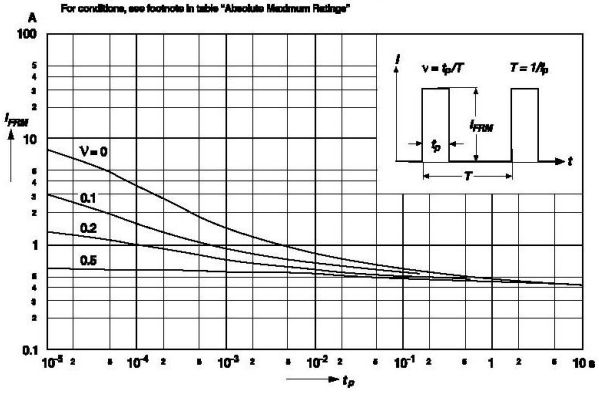


Leakage current versus junction temperature



Admissible repetitive peak forward current versus pulse duration

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



Marking