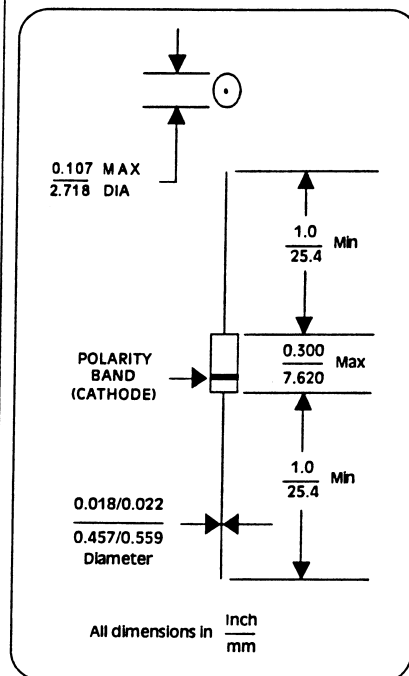


1N5139 thru 1N5148A

ELECTRICAL CHARACTERISTICS $T_A = 25^\circ\text{C}$ unless otherwise specified

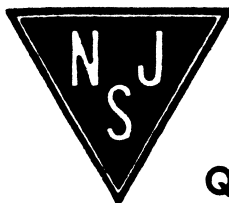
CHARACTERISTICS - ALL TYPES	TEST CONDITIONS	Min.	Typ.	Max.	Unit
Reverse Breakdown Voltage (V_{BR})	$I_R = 10 \text{ uadc}$	65	100	-	Vdc
Reverse Voltage Leakage Current (I_R)	$V_R = 55 \text{ Vdc}, T_A = 25^\circ\text{C}$	-	0.0001	0.02	uadc
	$V_R = 55 \text{ Vdc}, T_A = 150^\circ\text{C}$	-	0.16	-	uadc
Series Inductance (L_s)	$f = 250 \text{ MHz}, L \ 1/16"$	-	5	-	nH
Case Capacitance (C_c)	$f = 1 \text{ MHz}, L \ 1/16"$	-	0.25	-	pf
Diode Capacitance (TC_c) Temperature Coefficient	$VR = 4 \text{ Vdc}, f = 1 \text{ MHz}$	-	200	300	ppm/ $^\circ\text{C}$
Figure of Merit (Q)	$VR = 4 \text{ Vdc}, f = 50 \text{ MHz}$	See Table Below			-
Power (P_r) Derate 2.65 mW/ $^\circ\text{C}$ above $T_A = 25^\circ\text{C}$		-	-	400	mW
Operating Temp. Range		-55 to +150			$^\circ\text{C}$
Storage Temp. Range		-55 to +200			$^\circ\text{C}$



RATINGS AND CHARACTERISTICS

ISI PART NUMBER	C, CAPACITANCE (Picofarads) $V_R = 4 \text{ VDC}$ $f = 1 \text{ MHz}$			CAPACITANCE RATIO From $V_R = 4 \text{ VDC}$ To $V_R = 60 \text{ VDC}$		Q FIGURE OF MERIT $V_R = 4 \text{ VDC}$ $F = 50 \text{ MHz}$
	Nom.	Min.	Max.	Min.	Typ.	Min.
1N5139A	6.8	6.46	7.14	2.7	2.9	350
1N5140A	10	9.50	10.5	2.8	3.0	300
1N5141A	12	11.4	12.6	2.8	3.3	300
1N5142A	15	14.3	15.7	2.8	3.3	250
1N5143A	18	17.1	18.9	2.8	3.4	250
1N5144A	22	20.9	23.1	3.2	3.4	200
1N5145A	27	25.7	28.3	3.2	3.4	200
1N5146A	33	31.4	34.6	3.2	3.4	200
1N5147A	39	37.1	40.9	3.2	3.4	200
1N5148A	47	44.7	49.3	3.2	3.4	200

Capacitance Tolerance: A Suffix = $\pm 5\%$
No Suffix = $\pm 10\%$



Quality Semi-Conductors

DO-7

DESIGN DATA

CASE: Hermetically sealed glass case. DO-7 Outline.

LEAD MATERIAL: Copper clad steel

LEAD FINISH: Tin Plate

THERMAL RESISTANCE:

250 $^\circ\text{C}/\text{w}$ (Typical) junction to ambient

POLARITY: Diode to be operated with the banded (cathode) end positive with respect to the opposite end

WEIGHT: 0.2 Grams

MOUNTING POSITION: Any

MAXIMUM RATINGS

OPERATING TEMPERATURE:

-65 TO +175 $^\circ\text{C}$

STORAGE TEMPERATURE

-65 TO +200 $^\circ\text{C}$

LEAD TEMPERATURE: 1/16 inch from

case for 10 seconds - 260 $^\circ\text{C}$