

TECHNICAL DATA
DATA SHEET 6003, REV A

SMALL SIGNAL / COMPUTER DIODE CHIP

FEATURES / BENEFITS:

- ✓ Die fabricated on a MIL-PRF-19500 JANKC qualified manufacturing line
- ✓ Class H and class K element evaluation per MIL-PRF-19500/116
- ✓ All ratings are @ $T_A = 25\text{ }^\circ\text{C}$ unless otherwise specified

ELECTRICAL CHARACTERISTICS:

MAXIMUM RATINGS

ALL RATINGS ARE AT $T_A = 25\text{ }^\circ\text{C}$ UNLESS OTHERWISE SPECIFIED

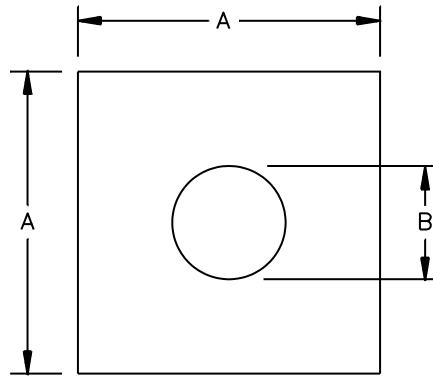
RATING	SYMBOL	MAX.	UNITS
PEAK INVERSE VOLTAGE ($I_R = 100\text{ }\mu\text{A}$)	PIV	100	Volts
WORKING PEAK REVERSE VOLTAGE	V_{RWM}	75	Volts
MAXIMUM AVERAGE DC OUTPUT CURRENT	I_o	0.2	Amps
PEAK SINGLE CYCLE SURGE CURRENT ($t_p = 8.3\text{ ms}$, half sine wave)	I_{FSM}	2.0	Amps
MAXIMUM OPERATING AND STORAGE TEMPERATURE RANGE 1N4148 1N914	$T_{op, stg}$	-65 to +200 -65 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

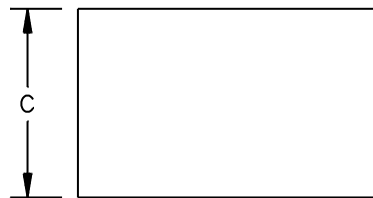
CHARACTERISTIC	SYMBOL	MAX.	UNITS
MAXIMUM FORWARD VOLTAGE DROP ($I_F = 10\text{ mA}$; pulsed)	V_{F1}	0.8	Volts
($I_F = 100\text{ mA}$; pulsed)	V_{F2}	1.2	Volts
1N4148			
($I_F = 50\text{ mA}$; pulsed)		1.2	Volts
1N914			
($T_A = 150\text{ }^\circ\text{C}$, $I_F = 10\text{ mA}$; pulsed)	V_{F3}	0.8	Volts
($T_A = -55\text{ }^\circ\text{C}$, $I_F = 100\text{ mA}$; pulsed)	V_{F4}	1.3	Volts
REVERSE CURRENT ($V_R = 20\text{ V}$)	I_{R1}	25	nA dc
($V_R = V_{RWM}$)	I_{R2}	0.5	μA dc
($T_A = 150\text{ }^\circ\text{C}$, $V_R = 20\text{ V}$)	I_{R3}	35	μA dc
($T_A = 150\text{ }^\circ\text{C}$, $V_R = V_{RWM}$)	I_{R4}	75	μA dc
CAPACITANCE ($V_R = 0\text{ Vdc}$; $V_{sig} = 50\text{ mV}_{(p-p)}$ $f = 1\text{ MHz}$)	C_{T1}	4.0	pF
($V_R = 1.5\text{ Vdc}$; $V_{sig} = 50\text{ mV}_{(p-p)}$ $f = 1\text{ MHz}$)	C_{T2}	2.8	pF
MAXIMUM REVERSE RECOVERY TIME ($I_F = I_R = 10\text{ mA}$, $I_{RR} = 1\text{ mA}$)	t_{rr}	5.0	ns

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PACKAGE DIMENSIONS (inches/mm):



BACKSIDE IS CATHODE



Ltr	Dimensions			
	Inches		Millimeters	
	Min	Max	Min	Max
A	.017	.021	0.432	0.533
B	.008	.010	0.203	0.254
C	.007	.011	0.178	0.279

NOTES:

1. Dimensions are in inches. Millimeters are given for general information only.
2. Element evaluation accomplished utilizing TO-39 package.
3. The physical characteristics of the die are:

Metallization:

Top (anode): Al

Back (cathode): Au

Al thickness: 34,000 Å minimum

Gold thickness: Ti/Ni/Au (1,200Å/1,800Å/4,000Å) nominal

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PART ORDERING INFORMATION:

JAN_xCC1NXXXX

Quality level

Industry part number

Quality Level:

Suffix	Part Number	Description
H	JANHCC1N4148	Class H level
K	JANKCC1N4148	Class K level

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