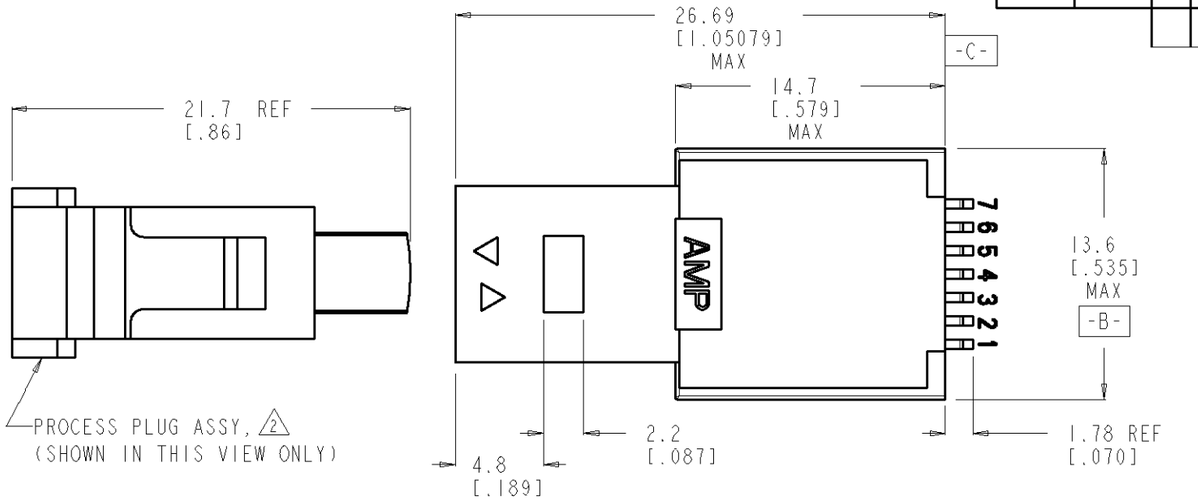
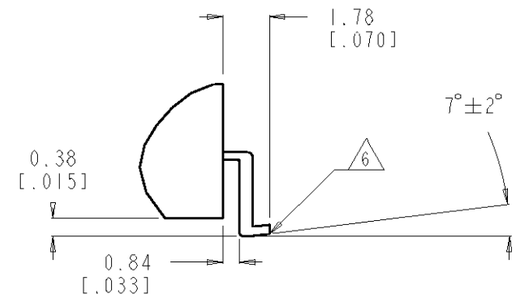
LOC	DIST
DR	1

REVISIONS

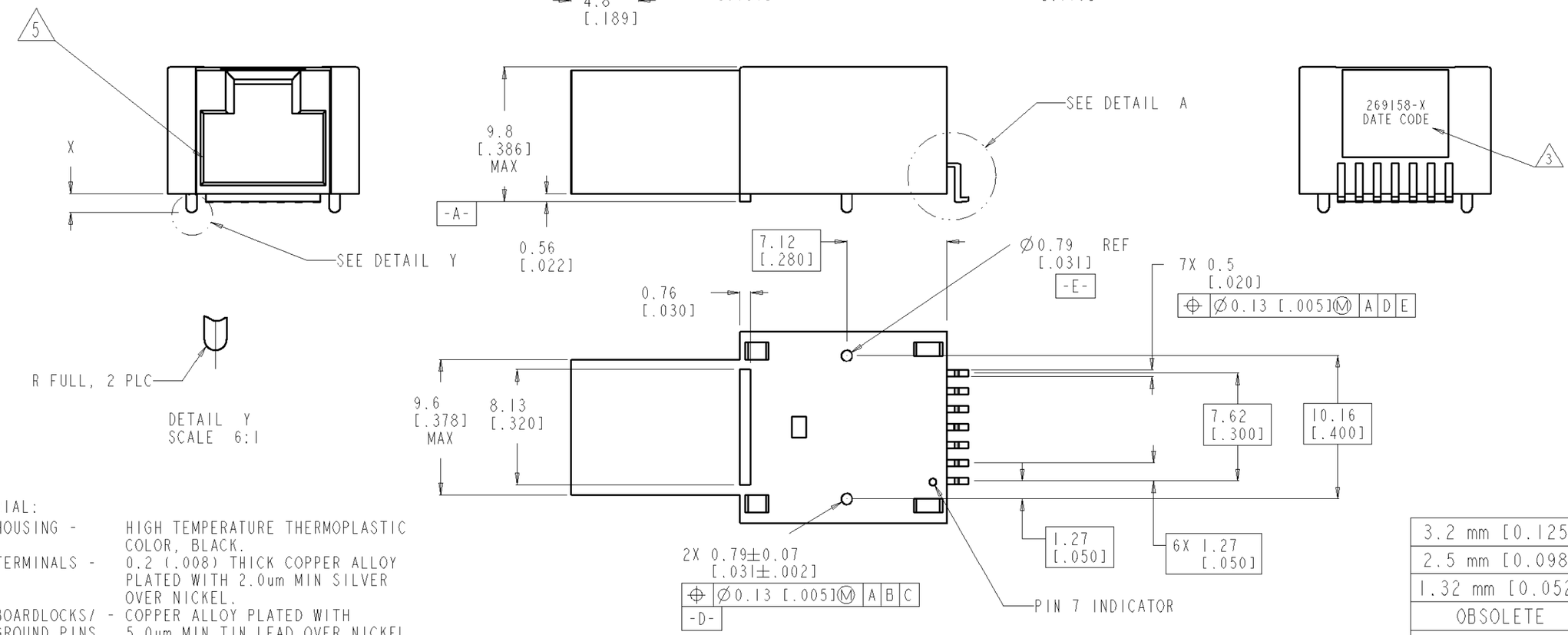
P	LTR	DESCRIPTION	DATE	DWN	APVD
	D	EC-0A20-0075-00	02JUN00	TJ	JM

PIN	DEVICE	FUNCTION
7	EMITTER	ANODE
6	EMITTER	CATHODE
5	EMITTER	SHIELD
4	DETECTOR	SHIELD
3	DETECTOR	VCC
2	DETECTOR	VEE
1	DETECTOR	SIGNAL





DETAIL A
SCALE 5:1



DETAIL Y
SCALE 6:1

NOTES:

1. MATERIAL:
   - HOUSING - HIGH TEMPERATURE THERMOPLASTIC COLOR, BLACK.
   - TERMINALS - 0.2 (.008) THICK COPPER ALLOY PLATED WITH 2.0um MIN SILVER OVER NICKEL.
   - BOARDLOCKS/ GROUND PINS - COPPER ALLOY PLATED WITH 5.0um MIN TIN LEAD OVER NICKEL
2. TO PROTECT OPTICAL SURFACES DURING SOLDERING AND AQUEOUS CLEANING PRODUCT SHIPPED WITH PROCESS PLUG INSTALLED.
3. LABEL.
4. PLATED THRU VIA HOLE TIED TO CIRCUIT GROUND.
5. RECEPTACLE DIMENSIONS CONFORM TO IEC 61754-18: FIBRE OPTIC CONNECTOR INTERFACES- PART 18 TYPE MT-RJ CONNECTOR FAMILY, EDITION 1.
6. HEELS OF LEADS ARE CO-PLANAR WITHIN 0.12 (.004).

3.2 mm [0.125]	269158-4
2.5 mm [0.098]	269158-3
1.32 mm [0.052]	269158-2
OBSOLETE	269158-1
DIM X	PART No.

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DIMENSIONS: mm[INCHES]

TOLERANCES UNLESS OTHERWISE SPECIFIED:

0 PLC	±-
1 PLC	±.25[.010]
2 PLC	±.13[.005]
3 PLC	±.07[.0028]
4 PLC	±-
ANGLES	±-

MATERIAL - 1

FINISH -

DWN	T. JAMES 11JAN00
CHK	J. MARKHAM -
APVD	-
PRODUCT SPEC	108-55023
APPLICATION SPEC	-
WEIGHT	-

CUSTOMER DRAWING

AMP Incorporated
Harrisburg PA 17105-3608

NAME
10 Mb/s SHORT WAVELENGTH SURFACE MOUNTABLE MT-RJ TRANSMITTER/RECEIVER PAIR

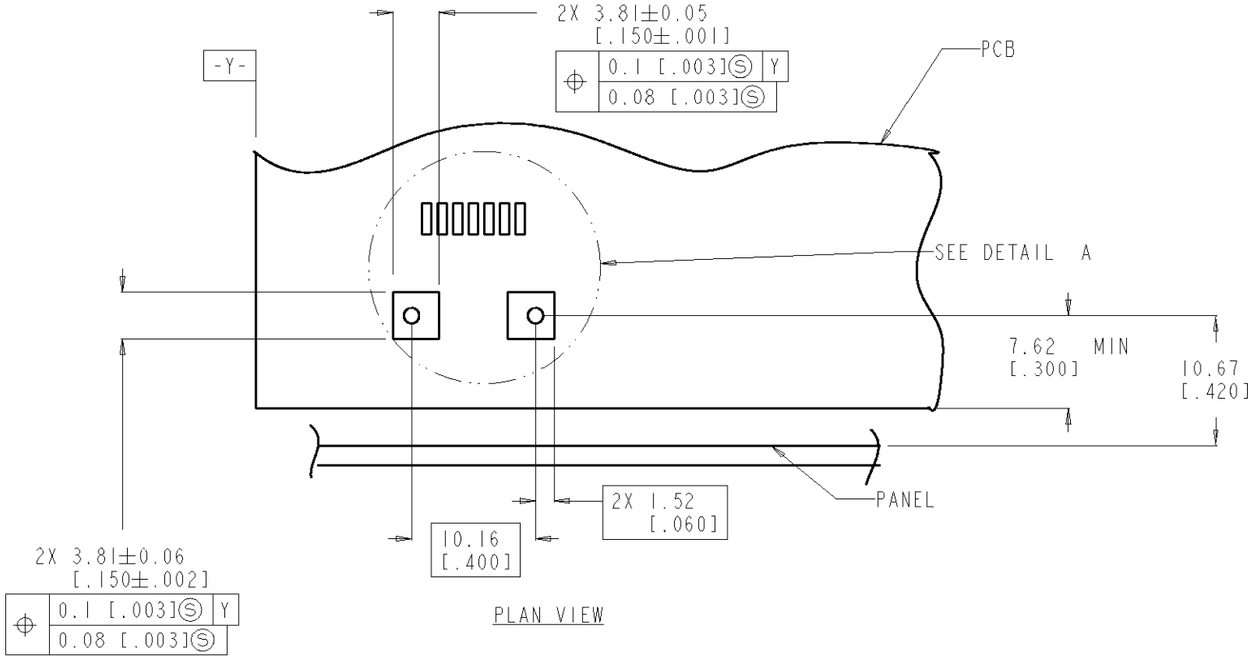
SIZE	CAGE CODE	DRAWING NO
A3	00779	C-269158

SCALE	SHEET	REV
3:1	1 OF 4	D

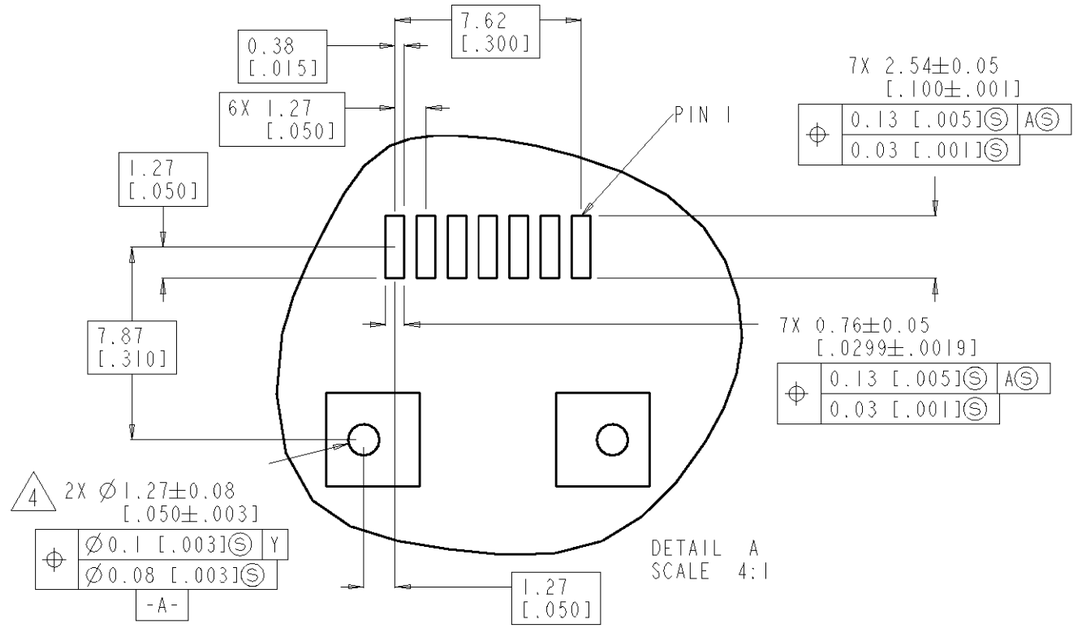
LOC	DIST
DR	1

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

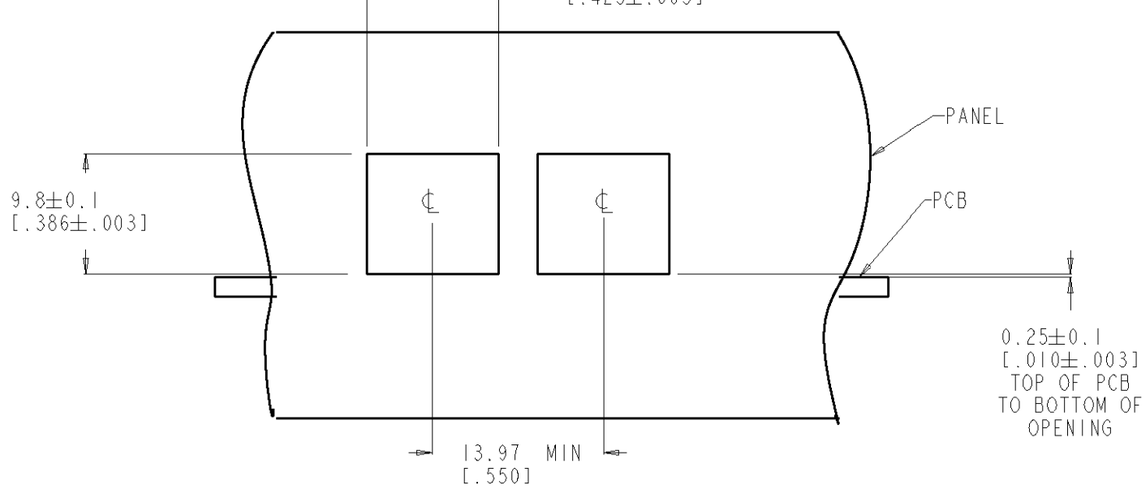


PLAN VIEW



DETAIL A
SCALE 4:1

RECOMMENDED PC BOARD LAYOUT



FRONT VIEW

RECOMMENDED PANEL MOUNT

SEE SHEET 1 FOR NOTES.

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0 PLC	±-
1 PLC	±.25[.010]
2 PLC	±.13[.005]
3 PLC	±.07[.0028]
4 PLC	±-
ANGLES	±-

MATERIAL -

FINISH -

DWN	T. JAMES 11JAN00
CHK	J. MARKHAM -
APVD	-
PRODUCT SPEC	-
APPLICATION SPEC	-
WEIGHT	-

AMP Incorporated
Harrisburg PA 17105-3608

NAME
10 Mb/s SHORT WAVELENGTH
SURFACE MOUNTABLE MT-RJ
TRANSMITTER/RECEIVER PAIR

SIZE	CAGE CODE	DRAWING NO
A3	00779	C-269158

CUSTOMER DRAWING

SCALE	SHEET	REV
3:1	2 OF 4	D

LOC	DIST
DR	1

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

TRANSMITTER PERFORMANCE SPECIFICATION:
ELECTRICAL/OPTICAL SPECIFICATIONS 0°C TO +70°C: TYPICAL VALUES AT 25°C
UNLESS OTHERWISE SPECIFIED. OUTPUT POWER MEASURED OUT OF 3m CABLE WITH 0.75" DIA. MANDREL WRAP.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS	
OPTICAL POWER 62.5/125 µm FIBER CABLE NA = 0.275	P_{T62}	-15.0	-12.0	-10.0	dBm	T_A =25°C	I_F = 60mA
		-16.0	--	-9.0			
		-13.5	-11.2	-7.6		T_A =25°C	I_F = 100mA △7
		-15.1	--	-7.0			

DYNAMIC CHARACTERISTIC

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
RISE TIME FALL TIME (10% TO 90%)	t_R, t_r	--	4.0	6.5	nsec	I_F - 60 mA NO PRE-BIAS

ELECTRICAL/OPTICS SPECIFICATIONS 0°C TO +70°C: TYPICAL VALUES ARE AT 25°C
UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS	
FORWARD VOLTAGE	V_F	1.48	1.70	2.09	V	I_F = 60mA	
		--	1.84	--		I_F = 100mA	△7
FORWARD VOLTAGE TEMP. COEFFICIENT	V_F/T	--	-2.0	--	mV/°C	I_F = 60mA	
		--	0.30	--		I_F = 100mA	△7
REVERSE INPUT VOLTAGE	V_{BR}	1.8	3.8	--	V	I_R = 100µA	
CENTER EMISSION WAVELENGTH	λ_P	820	840	865	nm	If =60mA	
		820	850	875		If = 100mA	△7
DIODE CAPACITANCE	C_T	--	55	--	pF	V = 0 f = 1 MHz	
OPTICAL POWER TEM. COEFFICIENT	P_T/T	--	-.008	--	dB/°C	I = 60mA	
		--	-.02	--		I = 100mA	△7

ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	MIN	MAX	UNITS	
STORAGE TEMP.		T_S	-55	+85	°C	
OPERATING TEMP.		T_A	0	+70	°C	
LEAD SOLDERING CYCLE	TEMP.	--	--	+260	°C	
	TIME	--	--	10	SEC	
FORWARD INPUT CURRENT	PEAK.	--	--	200	mA	
	DC	--	--	100	mA	△8
REVERSE INPUT VOLTAGE		V_{BR}	--	1.8	V	

△7 100mA, PARAMETERS ARE REFERENCE

△8 PEAK CURRENT >100mA (TIME DURATION < 2nS)

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DIMENSIONS: mm[INCHES]

TOLERANCES UNLESS OTHERWISE SPECIFIED:
0 PLC ±-
1 PLC ±.25[.010]
2 PLC ±.13[.005]
3 PLC ±.07[.0028]
4 PLC ±-
ANGLES ±-

MATERIAL -
FINISH -

DWN T. JAMES 11JAN00
CHK J. MARKHAM -
APVD - -
PRODUCT SPEC -
APPLICATION SPEC -
WEIGHT -

CUSTOMER DRAWING

AMP Incorporated
Harrisburg PA 17105-3608

NAME
10 Mb/s SHORT WAVELENGTH SURFACE MOUNTABLE MT-RJ TRANSMITTER/RECEIVER PAIR

SIZE	CAGE CODE	DRAWING NO
A3	00779	C-269158

SCALE	SHEET	REV
3:1	3 OF 4	D

LOC	DIST
DR	1

REVISIONS

P	LTR	DESCRIPTION	DATE	DWN	APVD
	-	SEE SHEET 1	-	-	-

RECEIVER PERFORMANCE SPECIFICATION:
ELECTRICAL/OPTICAL CHARARCTERISTICS 0°C TO +70°C: (TYP. VALUES ARE 25°C AND +5.0V)
$+4.75 \leq V_{cc} \leq +5.45$ R_{LOAD} = 511 ohm. FIBER SIZES WITH CORE DIAMETER $\leq$ 62.5µm. AND N.A $\leq$ 0.28 UNLESS OTHERWISE SPECIFIED.

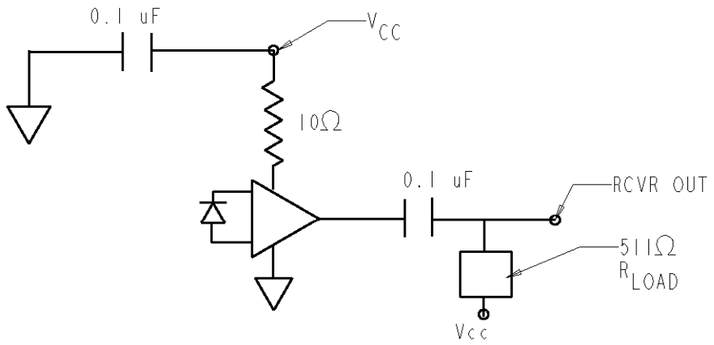
PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
RESPONSIVITY (9)	R_P	5.9	7	8.7	mV/µW	T_A = 25°C
		4.5	--	11.5		@ 840 nm. 10MHz
RMS OUTPUT NOISE VOLTAGE	V_{NO}	--	0.50	0.70	mV	@ 840 nm. 10MHz UNFILTERED BANDWIDTH P_R=0µW
EQUIVALENT OPTICAL NOISE INPUT POWER (RMS)	P_N	--	-41.5	-38.0	dBm	UNFILTERED BANDWIDTH
		--	0.071	0.155	µW	
PEAK INPUT POWER (10)	P_R	--	--	-7.6	dBm	T_A = 25°C
		--	--	175	µW	
		--	--	-8.2	dBm	
		--	--	150	µW	
OUTPUT IMPEDANCE	Z_O	--	30	--	ohm	TEST FREQUENCY = 50 MHz
DC OUTPUT VOLTAGE	V_{odc}	+1.00		+2.8	V	P_R=0µW
POWER SUPPLY CURRENT	I_{EE}	--	9	15	mA	

NOTES:

(9) PIN 1 SHOULD BE AC COUPLED TO 511 OHM LOAD. TERMINATED AT V_{CC}. LOAD CAPACITANCE MUST BE LESS THAN 5 pf.

(10) OVERDRIVE IS DEFINED AT PWD = 2.5ns.

(11) MEASURED WITH A 10ns PULSE WIDTH. 50% DUTY CYCLE, AT THE 50% AMPLITUDE OF THE WAVEFORM.



DYNAMIC CHARACTERISTIC 0°C TO +70°C: (TYP. VALUES ARE 25°C AND +5.0V)
$+4.75 \leq V_{cc} \leq +5.25$. UNLESS OTHERWISE SPECIFIED.

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
RISE TIME FALL TIME (10% TO 90%)	t_R, t_r	--	2.7	6.3	ns	P_R = 100µW PEAK
PULSE WIDTH DISTORTION (11)	PWD	--	0.4	1.0	ns	P_R = 150µW PEAK
BADNWIDTH (ELECTRICAL)	BW_e	--	125	--	MHz	-3 dB ELECTRICAL

ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	MIN	MAX	UNITS
STORAGE TEMP.		T_S	-55	+85	°C
OPERATING TEMP.		T_A	0	+70	°C
LEAD SOLDERING CYCLE	TEMP.	--	--	+260	°C
	TIME	--	--	10	SEC
SIGNAL PIN	VOLTAGE	V_{SIGNAL}	-0.5	V_{CC}	V
SUPPLY VOLTAGE		V_{CC}-V_{EE}	-0.5	6.0	V
OUTPUT CURRENT		I_O	--	25	mA

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2 PLC ±.13[.005]
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Harrisburg PA 17105-3608

NAME 10 Mb/s SHORT WAVELENGTH SURFACE MOUNTABLE MT-RJ TRANSMITTER/RECEIVER PAIR

SIZE A3 | CAGE CODE 00779 | DRAWING NO C-269158

CUSTOMER DRAWING | SCALE 3:1 | SHEET 4 OF 4 | REV D