TYPICAL CHARACTERISTICS
ON
P2T-218-60-512-R-SFF

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER P2T-218-60-512-R-SFF IS A SINGLE POLE, TWO THROW, REFLECTIVE SWITCH OPERATING OVER THE FREQUENCY RANGE OF 2.0 TO 18.0 GHz. IT HAS A MINIMUM ISOLATION OF 60 dB AND A MAXIMUM INSERTION LOSS OF 1.8 dB. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS

Tested By
Dylan Hoschar
Reported By
Dylan Hoschar
10/22/2024

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PRODUCT FEATURE

ZONE	REV.	DESCRIPTION	DATE	APPROVED
	A1	ORIGINAL RELEASE	3/21/2024	

DESCRIPTION:

PLANAR MONOLITHICS INDUSTRIES MODEL NUMBER P2T-218-60-512-R-SFF IS A SINGLE POLE, TWO THROW, REFLECTIVE SWITCH OPERATING OVER THE FREQUENCY RANGE OF 2.0 TO 18.0 GHz. IT HAS A MINIMUM ISOLATION OF 60 dB AND A MAXIMUM INSERTION LOSS OF 1.8 dB. THIS MODEL IS OUTFITTED WITH SMA FEMALE CONNECTORS.

SPECIFICATIONS:

FREQUENCY RANGE:	2.0 TO 18.0 GHz
INTERFACE:	TTL (SEE TRUTH TABLE)
ISOLATION:	60 dB MIN
INSERTION LOSS:	1.8 dB MAX
SWITCHING SPEED:	30 ns MAX
VSWR:	1.9:1 MAX
IMPEDANCE:	50 Ω
RF INPUT POWER:	1W CW / 2W PEAK MAX
SUPPLY VOLTAGES:	+5V @ 65 mA MAX, -12V @ 65 mA MAX
CONNECTORS:	SMA FEMALE (FIELD REPLACABLE)
FINISH:	GOLD PLATED

TRUTH TABLE	
L1	OUTPUT
"1"	J1-J2
"0"	J1-J3

ENVIRONMENTAL RATINGS:

TEMPERATURE:	-54°C TO +95°C (OPERATING) -57°C TO +125°C (STORAGE)
VIBRATION:	RANDOM: 20-500 Hz SPECTRAL DENSITY: 0.01g²/Hz RMS: 6.8g
MECHANICAL SHOCK:	PEAK: 100g DURATION: 4 ms, HALFSINE
HUMIDITY:	90%
PRESSURE:	OPERATION: 0.6-1.4 BAR STORAGE: 0.3-1.4 BAR VARIATION: ±0.5 BAR
CORROSION:	RESISTANT AGAINST SEAWATER
MTBF:	200,000 h
EMC:	NO RADIATION

NOTE: THE ABOVE SPECIFICATIONS ARE SUBJECT TO CHANGE OR REVISION
SPECIFICATIONS WILL VARY OVER OPERATING TEMPERATURE

PMI CONFIDENTIAL AND PROPRIETARY

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ARE: FRACTIONS ± DECIMALS .XX ± 0.010 .XXX ± 0.005 ANGLES ±	PART NO.			Quantic PMI PLANAR MONOLITHICS 7309-A GROVE ROAD FREDERICK, MARYLAND 21704 USA TEL: (301) 662-5019 FAX: (301) 662-1731 WEB: WWW.QUANTICPMI.COM EMAIL: SALES@QUANTICPMI.COM ISO 9001 CERTIFIED
	APPROVALS	DATE		
MATERIAL:	DRAWN D. HOSCHAR	3/21/2024	TITLE	OUTLINE P2T-218-60-512-R-SFF
FINISH:	REDRAWN			
NEXT ASSY / USED ON	ISSUED		SIZE B / FSCM NO. 05XQ0 / DWG NO. 27048420	REV. A1
APPLICATION			SCALE 3:1	SHEET 1 OF 1

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TEST DATA

TEST ITEM	PARAMETERS	SPECIFIED VALUE	TEST RESULTS		
			25°C	-54°C	95°C
1	Frequency Range	2 GHz to 18 GHz	**2 GHz to 18 GHz**	**2 GHz to 18 GHz**	**2 GHz to 18 GHz**
2	Isolation	60 dB Min.	**60 dB**	**60 dB**	**60 dB**
3	Insertion Loss	1.8 dB Max.	**1.67 dB**	**1.7 dB**	**1.65 dB**
4	Switching Speed Max	30 ns Max.	**21.09 ns See Plots**		
5	VSWR: In/Out	1.9:1 Max.	**1.85:1 In 1.82:1 Out**	**1.85:1 In 1.85:1 Out**	**1.81:1 In 1.71:1 Out**
6	Operating Power CW	1 Watts Max	**1 Watts CW See Graph**		
7	Operating Power Peak	2 Watts Max	**2 Watts Peak (0.1 us PW, 1% DC)**		
8	Power Supply	5 V @ 65 mA Max. -12 V @ 65 mA Max.	**5 V @ 23 mA -12 V @ 18 mA**	**5 V @ 23 mA -12 V @ 18 mA**	**5 V @ 23 mA -12 V @ 18 mA**

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TYPICAL CHARACTERISTICS
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Switching Speed

Legend:
Green: TTL Trace
Yellow: RF Trace

Switching Speed On

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TYPICAL CHARACTERISTICS
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Switching Speed Off

Legend:
Green: TTL Trace
Yellow: RF Trace

Full Pulse

Legend:
Green: TTL Trace
Yellow: RF Trace

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TYPICAL CHARACTERISTICS
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Transients

Switching Speed Transients ON

Legend:
Green: TTL Trace
Yellow: RF Trace

Switching Speed Transients OFF

Legend:
Green: TTL Trace
Yellow: RF Trace

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