

REVISIONS				
Revision	ECN No.	Date	Name	Signature
2	Released	12/05/05	SMT-II-120505	
3	Released	04/08/09	Isolation Specs	Jack Zhu

SPECIFICATION FOR RFID APPLICATION:

SMT Series Surface Mount Circulator

P/N # JCM0840T0845S10R (0.840~0.845GHz)

P/N # JCM0840T0924S10R (0.840~0.924GHz)

P/N # JCM0860T0872S10R (0.860~0.872GHz)

P/N # JCM0860T0960S10R (0.860~0.960GHz)

P/N # JCM0850T0950S10R (0.850~0.950GHz)

P/N # JCM0902T0928S10R (0.902~0.928GHz)

P/N # JCM0902T0930S10R (0.902~0.930GHz)

P/N # JCM0920T0925S10R (0.920~0.925GHz)

P/N # JCM0950T0956S10R (0.950~0.956GHz)

RoHS Compliant



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	Date	Name	Signature	Title:
DRAFT	08/01/03	Q.WANG		LOW INTERMODULATION SMT-II SERIES SURACE MOUNT CIRCULATOR
APPD EE	23/12/05	J. ZHU		
APPD ED	23/12/05	J. ZHU		
PROJ ENGR	23/12/05	J. ZHU		
Classification	Size	Rev	DWG. No.	SH-SC20A
A / Paten Pending	II-A	2	CAGE Code: SMT-II-0.860~0.960-A	Sheet 1 of 5

1 SCOPE

This General Specification (GS) defines the technical specifications, mechanical specification, assembly recommendation and packaging for the SMT-II LOW INTERMODULATION SURFACE MOUNT CIRCULATOR ---

P/N # JCM0860T0872S10R (0.860~0.872GHz)

P/N # JCM0860T0960S10R (0.860~0.960GHz)

P/N # JCM0850T0950S10R (0.850~0.950GHz)

P/N # JCM0902T0928S10R (0.902~0.928GHz)

P/N # JCM0902T0930S10R (0.902~0.930GHz)

P/N # JCM0950T0956S10R (0.950~0.956GHz)

2 TECHNICAL SEPCIFICATIONS

SPECIFICATION / NARROW BANDS	MIN	TYP	MAX	UNITS
JCM0840T0845S10R -Frequency Range	840		845	MHz
JCM0860T0872S10R -Frequency Range	860		872	MHz
JCM0902T0928S10R -Frequency Range	902		928	MHz
JCM0902T0930S10R -Frequency Range	902		930	MHz
JCM0920T0925S10R -Frequency Range	920		925	MHz
JCM0950T0956S10R -Frequency Range	950		956	MHz
Nominal Impedence		50		Ohms
Isolation	27	28		dB
Insertion Loss		0.20	0.30	dB
Forward Power	100			Watts
Return Loss (all ports)	20	23		dB
3 rd Intermodulation **		-85	-75	dBc
Direction of Circulation		Clockwise		
Temperature Range	-30		+75	Celsius

Notes:

* Peak Power spike is no more than 5 micro seconds.

** Two tone intermod levels is measured with 2x 20W tones, Δf is 15MHz.

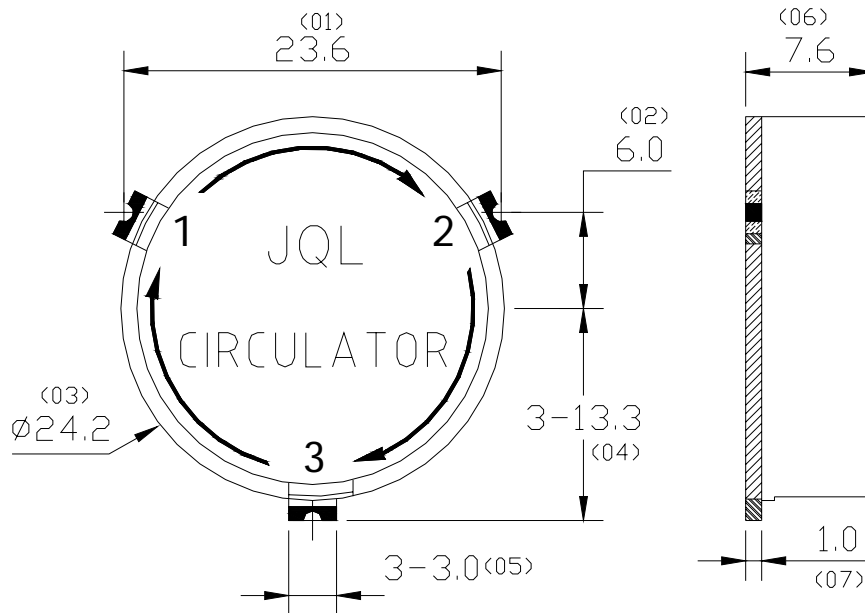
SPECIFICATION / FULL BAND	MIN	TYP	MAX	UNITS
JCM0840T0924S10R -Frequency Range	840		924	MHz
JCM0860T0960S10R -Frequency Range	860		960	MHz
JCM0850T0950S10R -Frequency Range	850		950	MHz
Nominal Impedence		50		Ohms
Isolation	18	20		dB
Insertion Loss		0.40	0.4	dB
Forward Power	100			Watts
Return Loss (all ports)	18	20		dB
3 rd Intermodulation **		-85	-75	dBc
Direction of Circulation		Clockwise		
Temperature Range	-30		+75	Celsius

Notes:

* Peak Power spike is no more than 5 micro seconds.

** Two tone intermod levels is measured with 2x 20W tones, Δf is 15MHz.

3 OUTLINE DRAWINGS



Units: mm

	mm	inch
Diameter	24.2	0.95
Height	7.6	0.30
Thickness of PCB (Bottom)	1.0	0.04
Tolerance	±0.1	±0.01

5 REFLOW PROFILE

Average Ramp-Up Rate	2°C/Sec Max
Preheat 25°C~150°C	200 Secs
Peak Temperature	245°C ± 5°C
Time within 5°C of actual Peak Temperature	8 Secs Max
Average Ramp-Down Rate	4°C/Sec Max
Time 25°C to Peak Temperature	300 Secs

Suggested Reflow Profile for JQL SMT Circulators

