

REVISIONS				
Revision	ECN No.	Date	Name	Signature
2	Released	12/05/05	SMT-II-120505	

SPECIFICATION FOR WIRELESS APPLICATION:

SMT Series Surface Mount Circulator

P/N # JCM0824T0849S10R-IMD (0.824~0.849GHz)

P/N # JCM0869T0894S10R-IMD (0.869~0.894GHz)

P/N # JCM0898T0915S10R-IMD (0.898~0.915GHz)

P/N # JCM0920T0960S10R-IMD (0.920~0.960GHz)

P/N # JCM0925T0960S10R-IMD (0.925~0.960GHz)



THESE DRAWINGS AND SPECIFICATIONS ARE THE PROPERTY OF JQL ELECTRONICS INC. AND SHALL NOT BE REPRODUCED OR USED WITHOUT WRITTEN PERMISSION FROM JQL ELECTRONICS INC.

	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-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 # JCM0807T0902S10R (0.807~0.902GHz)

P/N # JCM0824T0849S10R (0.824~0.849GHz)

P/N # JCM0869T0894S10R (0.869~0.894GHz)

P/N # JCM0898T0915S10R (0.898~0.915GHz)

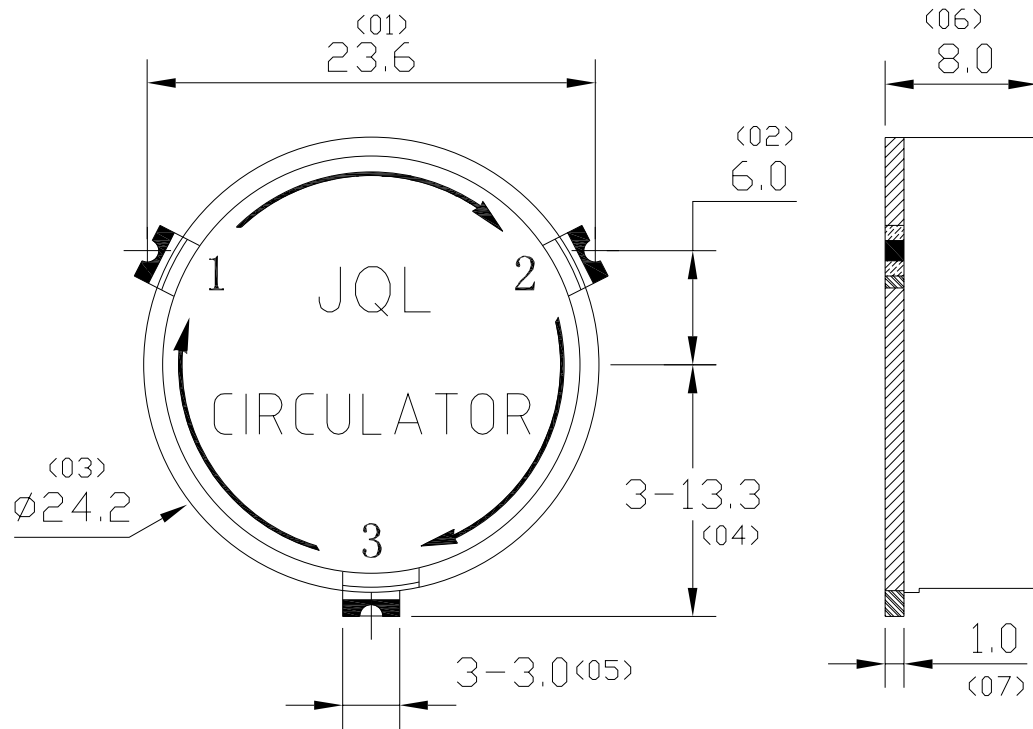
2 TECHNICAL SEPCIFICATIONS

SPECIFICATION / NARROW BANDS	MIN	TYP	MAX	UNITS
JCM0824T0849S10R-IMD	824		849	MHz
JCM0869T0894S10R -IMD	869		894	MHz
JCM0898T0915S10R -IMD	898		915	MHz
JCM0920T0960S10R -IMD	920		960	MHz
JCM0925T0960S10R -IMD	925		960	MHz
Nominal Impedence		50		Ohms
Isolation	22	23		dB
Insertion Loss		0.30	0.35	dB
Forward Power	100			Watts
Return Loss (all ports)	20	23		dB
3 rd Intermodulation *		-85	-80	dBc
Direction of Circulation		Clockwise		
Temperature Range	-30		+75	Celsius

Notes:

* Two tone intermod levels is measured with 2x 30W tones, Δf is 15MHz.

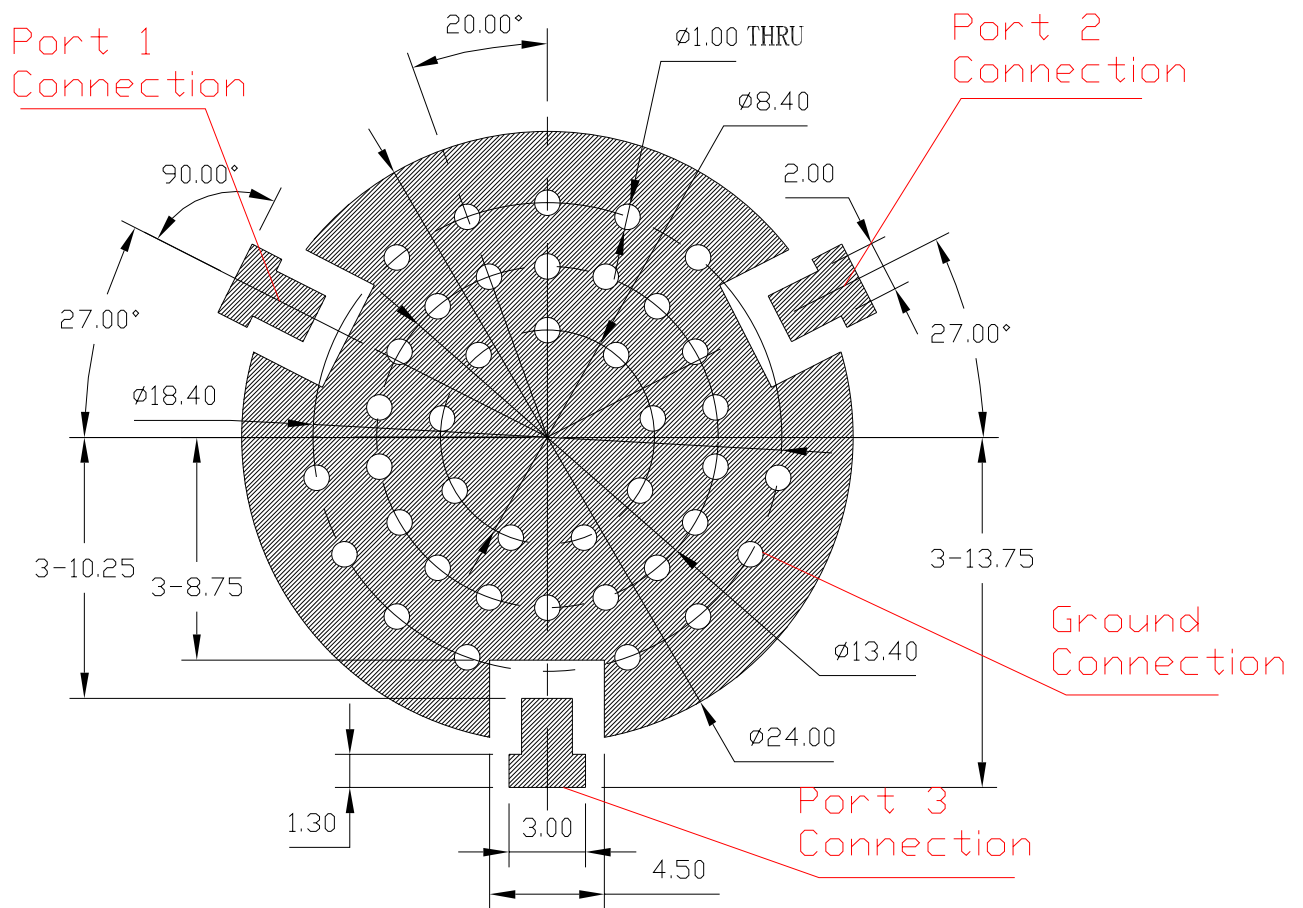
3 OUTLINE DRAWINGS



Units: mm

	mm	inch
Diameter	24.2	0.95
Height	8.0	0.31
Thickness of PCB (Bottom)	1.0	0.04
Tolerance	± 0.1	± 0.01

4 PCB LAYOUT RECOMMENDATION



Notes:

- * Ground Connection: At least 10% of recommended ground connection area must be soldered
- ** Thru hole is recommended, however the size of thru hole is not required.
- ***SMT-II Series Circulator was primary design for automotive reflowing assembly process
- *****Custom PCB Layout is optional at the additional cost

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

