



JOC247

Rev.A.1.0

DESCRIPTION:

The JOC247 is a photoelectric coupler composed of light-emitting diode and photo transistor. It is packaged in a 16-pin at SSOP16. The products are widely used in DC-DC converter, communications equipment, programmable controller and signal transmission.

MAIN FEATURES

- Current transfer ratio: 50%-600% ($I_F=5mA$, $V_{CE}=5V$, $T_a=25^\circ C$)
- High isolation voltage between input and output($V_{ISO}=3750 V_{rms}$)
- Collector-emitter breakdown voltage $BV_{CEO} 80V$
- Operating temperature range $-55^\circ C$ to $110^\circ C$
- UL VDE CQC approvals

ABSOLUTE MAXIMUM RATINGS (Temperature= $25^\circ C$)

Parameter		Symbol	Value	Unit
Input	Forward Current	I_F	60	mA
	Peak Forward Current	I_{FP}	1	A
	Reverse Voltage	V_R	6	V
	Power Dissipation	P_D	100	mW

Collector-emitter Voltage V_{CEO} mW

Output

ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	$I_F=10\text{mA}$	-	1.2	1.3	V
			$I_F=20\text{mA}$	-	1.24	1.4	
	Reverse Current	I_R	$V_R=6\text{V}$	-	-	1	μA
	Terminal Capacitance	C_t	$V=0,$ $f=1\text{MHz}$	-	30	250	pF
Output	Collector-Emitter dark current	I_{CEO}	$V_{CE}=20\text{V},$ $I_F=0$	-	-	50	nA
	Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=0.1\text{mA}$ $I_F=0$	80	-	-	V
	Emitter-Collector breakdown voltage	BV_{ECO}	$I_E=0.1\text{mA}$ $I_F=0$	7	-	-	V
Transfer Characteristics	Current transfer ratio	CTR	$I_F=5\text{mA}$ $V_{CE}=5\text{V}$	50	-	600	%
	Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_F=20\text{mA}$ $I_C=1\text{mA}$	-	0.06	0.2	V
	Isolation resistance	R_{IO}	DC500V 40~60%R.H.	5×10^{10}	10^{11}	-	
	Floating Capacitance	C_{IO}	$V=0,$ $f=1\text{MHz}$	-	0.4	1	pF
	Cut-off Frequency	f_c	$V_{CE}=5\text{V},$ $I_C=2\text{mA}$ $R_L=100\ \Omega,$ -3dB	-	80	-	kHz
	Rise Time	t_r	$V_{CE}=2\text{V},$ $I_C=2\text{mA}$	-	5	18	μs
	Fall Time	t_f		-	4	18	μs

FIG.7: Normalized Current Transfer Ratio vs. Ambient Temperature

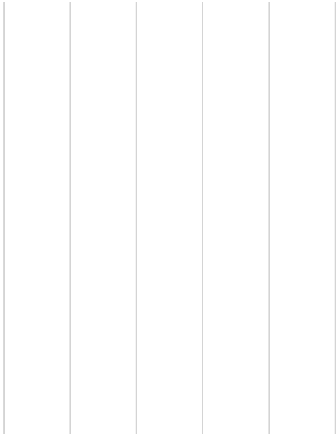
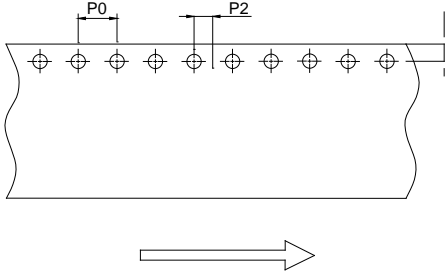


FIG.8: Normalized Collector-emitter Saturation Voltage vs. Ambient Temperature

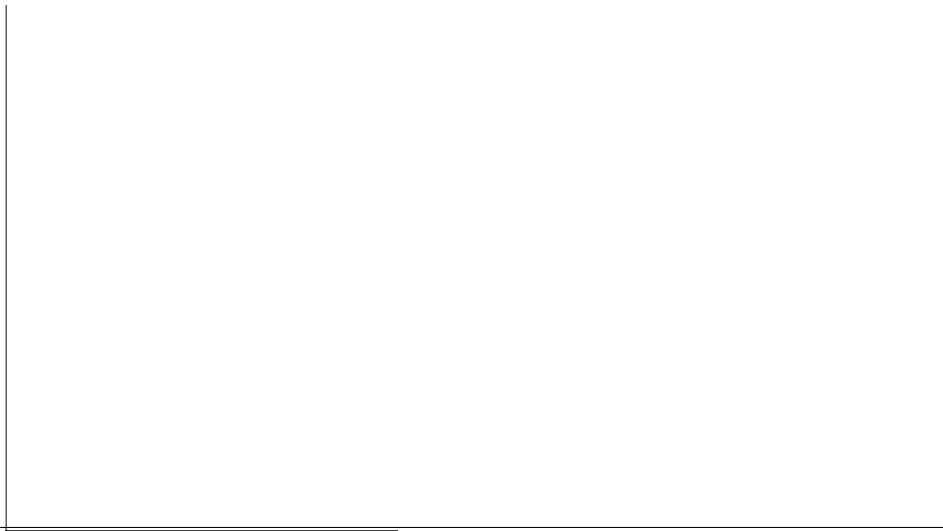
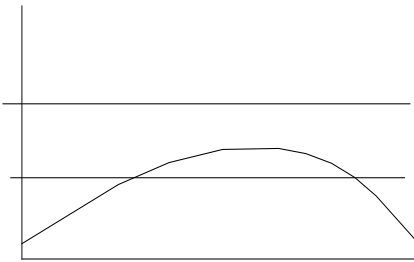
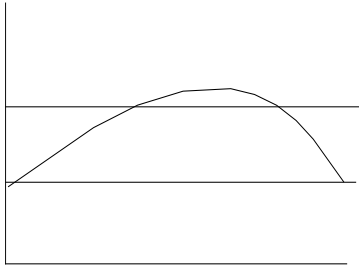
Package Dimension (Unit: mm)



CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)




REFLOW INFORMATION



Information furnished in this document is believed to be accurate and reliable. However, Jiangsu JieJie Microelectronics Co., Ltd. assumes no responsibility for the consequences of use without consideration for such information nor use beyond it. Information mentioned in this document is subject to change without notice, apart from that when an agreement is signed, Jiangsu JieJie complies with the agreement.

Products and information provided in this document have no infringement of patents. Jiangsu JieJie assumes no responsibility for any infringement of other rights of third parties which may result from the use of such products and information. This document supersedes and replaces all information previously supplied.

 is a registered trademark of Jiangsu JieJie Microelectronics Co., Ltd.

Copyright © 2025 Jiangsu JieJie Microelectronics Co., Ltd. All rights reserved.