



JOC851 Series

Rev.A.1.0

DESCRIPTION:

The JOC851 series combine an AlGaAs infrared emitting diode as the emitter which is optically coupled to a silicon planar high voltage phototransistor detector in a plastic DIP4 package with different lead forming options. With the robust coplanar double mold structure, JOC851 series provide the most stable isolation feature. The products are widely used in switch modepower supplies, programmable controllers, household appliances and office equipment.

MAIN FEATURES

Current transfer ratio CTR: 50%-600% @ $I_F=5\text{mA}$, $V_{CE}=5\text{V}$

High isolation voltage between input and output

($V_{iso}=5,000\text{Vrms}$)

Operating temperature up to $+110^\circ\text{C}$

Collector-Emitter voltage BV_{CEO} 350V

CQ (r)Capprov

Storage Temperature	T_{stg}	-55~+125	
Soldering Temperature	T_{sol}	260	

NOTE1 100 μ s pulse, 100Hz frequency

NOTE2 AC for 1minute, R.H.=40~60%

ELECTRICAL CHARACTERISTICS (Temperature=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	$I_F=10mA$	-	1.24	1.4	V
			$I_F=20mA$	-	1.3	1.5	
	Reverse Current	I_R	$V_R=6V$	-	-	1	μA
	Terminal Capacitance	C_t	$V=0,$ $f=1MHz$	-	30	250	pF
Output	Collector-Emitter dark current	I_{CEO}	$V_{CE}=200V,$ $I_F=0$	-	-	100	nA
	Collector-Emitter breakdown voltage	BV_{CEO}	$I_C=0.1mA$ $I_F=0$	350	-	-	V
	Emitter-Collector breakdown voltage	BV_{ECO}	$I_E=0.1mA$ $I_F=0$	7	-	-	V
Transfer Characteristics	Current transfer ratio	CTR	$I_F=5mA$ $V_{CE}=5V$	50	-	600	%
	Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	$I_F=20mA$ $I_C=1mA$	-	0.06	0.2	V
	Isolation resistance	R_{IO}	DC500V 40~60%R.H.	5×10^{10}	10^{11}	-	
	Floating Capacitance	C_{IO}	$V=0,$ $f=1MHz$	-	0.6	1	pF
	Cut-off Frequency	f_c	$V_{CE}=5V,$ $I_C=2mA$ $R_L=100 \Omega,$ -3dB	-	80	-	kHz
	Rise Time	t_r	$V_{CE}=2V,$ $I_C=2mA$ $R_L=100 \Omega$	-	3	18	μs
	Fall Time	t_f		-	4	18	μs
	Response Time	t_{on}		-	5	25	μs
t_{off}		-		4	25	μs	

ORDERING AND MARKING INFORMATION

MARKING INFORMATION JOCompanybrKdEKX



Characteristics Curves

FIG.1: Forward Current vs. Ambient Temperature

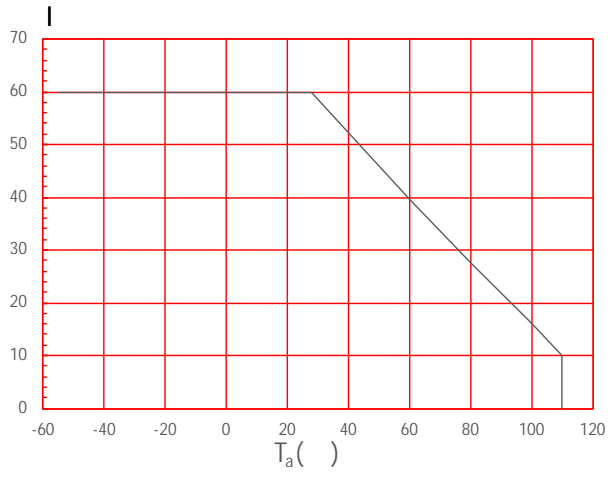


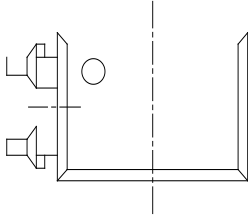
FIG.2: Collector Power Dissipation vs. Ambient Temperature

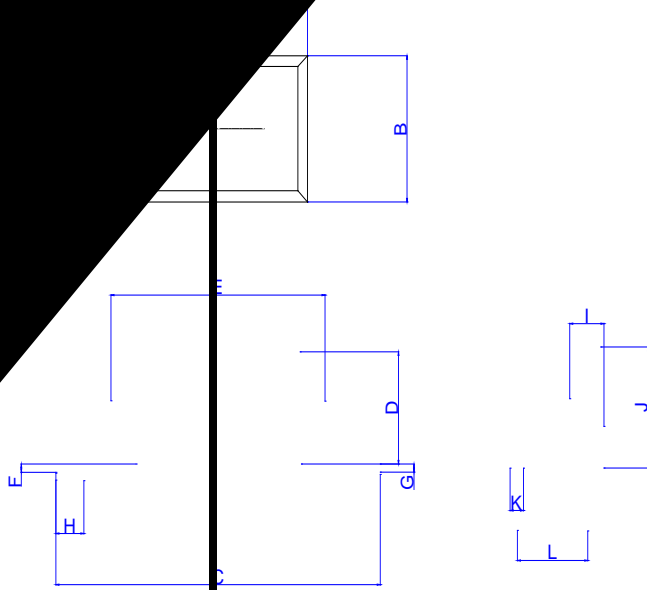
FIG.7: Normalized Current Transfer Ratio vs. Ambient Temperature



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

Option S Type:

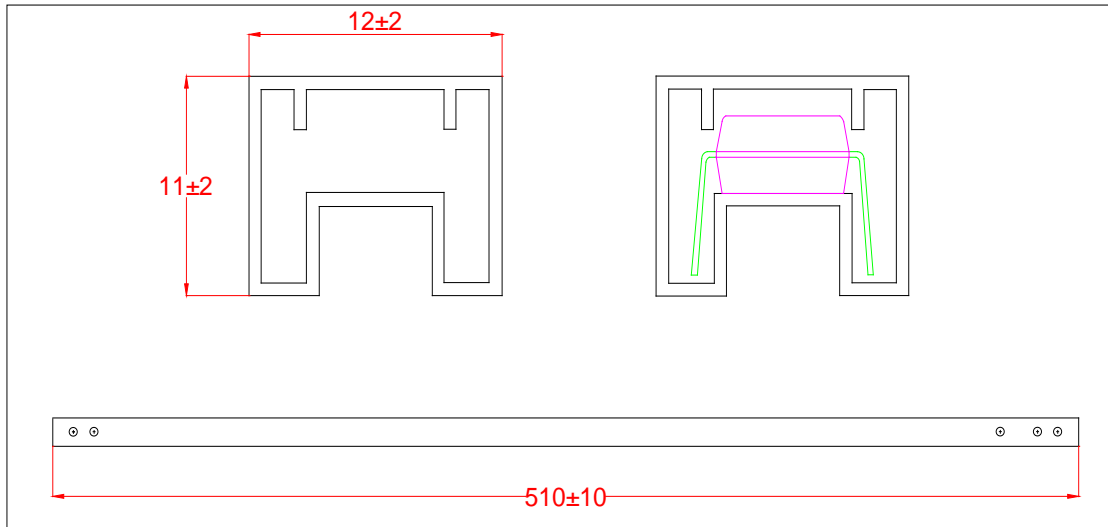




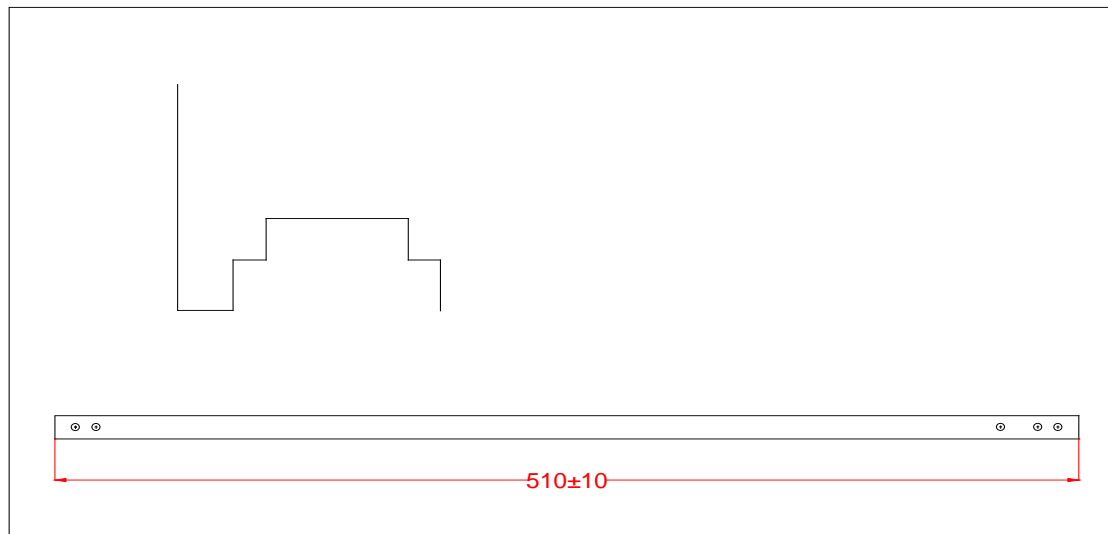
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	6.30		6.70	0.248		0.264
B	4.38		4.78	0.172		0.188
C	11.60		12.10	0.457		0.476
D	3.30		3.70	0.130		0.146
E	7.32		7.92	0.288		0.312
F						
G						
H	0.50			0.020		
I	1.15		1.35	0.045		0.053
J	3.45		3.85	0.136		0.152
K						
L						

TUBE SPECIFICATIONS (Dimensions in mm unless otherwise stated)

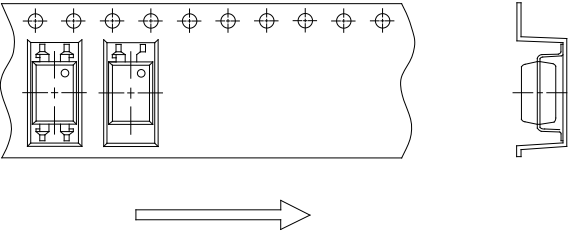
Standard DIP



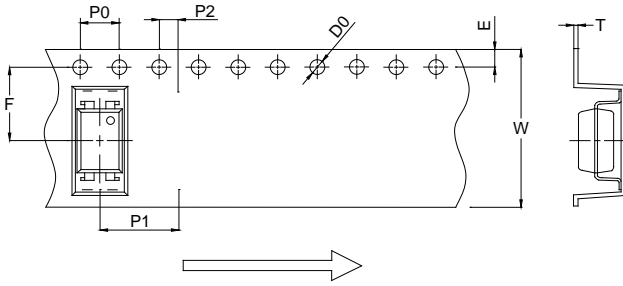
Option M



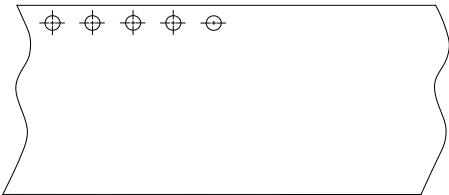
CARRIER TAPE SPECIFICATIONS (Dimensions in mm unless otherwise stated)



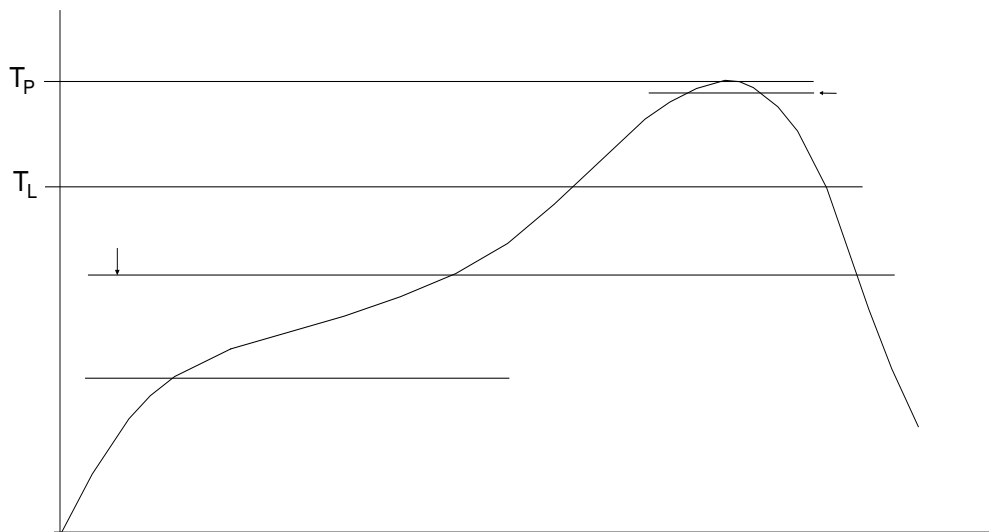
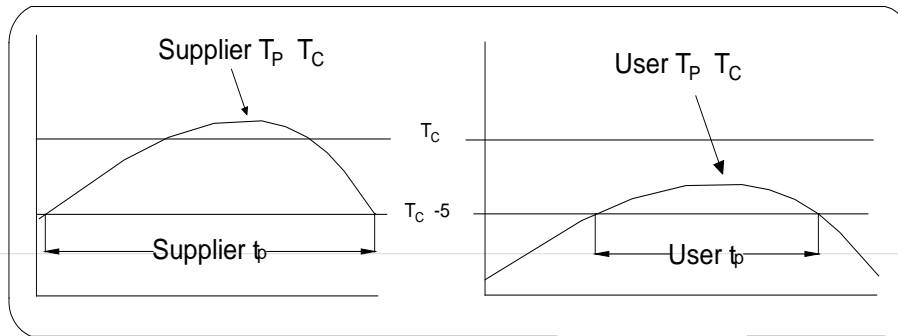
Option SL(T1)



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
D0		1.50			0.059	
P0		4.00			0.157	
P1		8.00			0.315	
P2		22 Tc	0.002 Tw	11.726	-0.002 Td	[(0)-2.9
E						
F					W	
T						
W		16.00			0.630	



REFLOW INFORMATION pp



WAVE SOLDERING



HAND SOLDERING BY SOLDERING IRON

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