JOC852 Series

Rev.A.1.0

The JOC852 series consist of an infrared light-emitting diode and a photo Darlington detector. The devices can realize electrical isolation and signal transmission between different circuits. The products are widely used in equipment, such as switch mode power supplies, computer peripheral interface, microprocessor system interface, telephone line interface, etc.

High current transfer ratio CTR ≥ 1000% @I_F=1mA, V_{CE}=2V
High isolation voltage between input and output
(V_{iso}=5,000Vrms)
Operating temperature up to +110°C
Collector-Emitter voltage BV_{CEO} ≥ 350V
CQC approved
VDE approved
UL approved
The products comply with RoHS, REACH and HF

(Temperature=25°C)

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

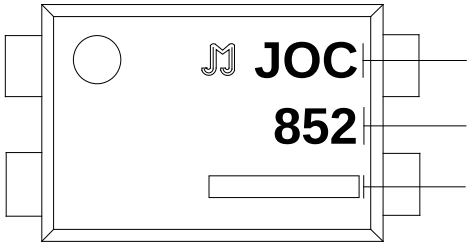
Storage Temperature	T_{stg}	-55~+125	
Soldering Temperature	T_{sol}	260	

: 100μs pulse, 100Hz frequency
: AC for 1minute, R.H.=40~60%

(Temperature=25°C)

Parameter		Symbol	Condition	Min.	Typ.	Max.	Unit
Input	Forward Voltage	V_F	I_F=10mA	-	1.2	1.4	V
			I_F=20mA	-	1.24	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=0mA	-	-	50	nA
	Collector-Emitter breakdown voltage	BV_{CEO}	I_C=0.1mA I_F=0mA	350	-	-	V
	Emitter-Collector breakdown voltage	BV_{ECO}	I_E=0.1mA I_F=0mA	0.1	-	-	V
	Collector current	I_C	I_F=1mA V_{CE}=2V	10	-	150	mA
	Current transfer ratio	CTR	I_F=1mA V_{CE}=2V	1000			

Transfer
Characteristics



: Company Abbr.
: Part Number & Rank
: Production Information Code

DIP	100 Units/Tube	32 Tubes/Inner box	10 Inner box/Outer box =32k Units
SMD	1500 Units/Reel	3 Reels/Inner box	5 Inner box/Outer box =22.5k Units

FIG.1: Forward Current vs. Ambient Temperature

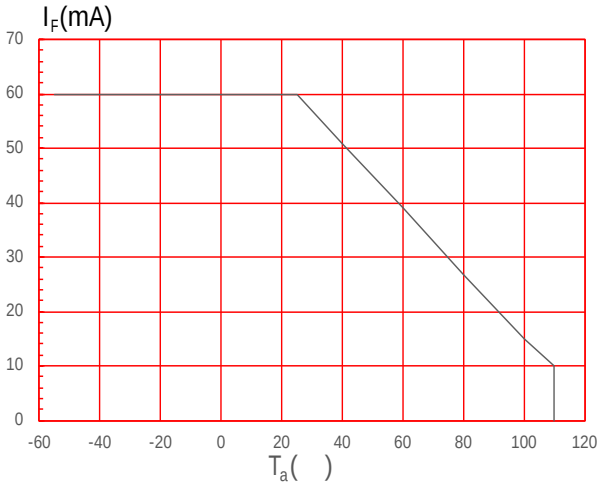


FIG.2: Collector Power Dissiption vs. Ambient Temperature

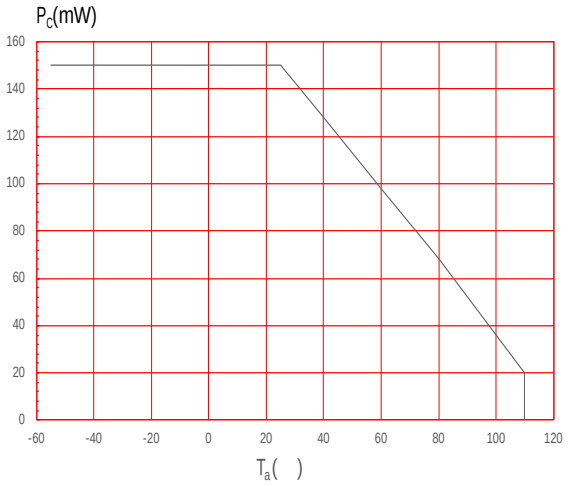


FIG.3: Forward Current vs. Forward Voltage

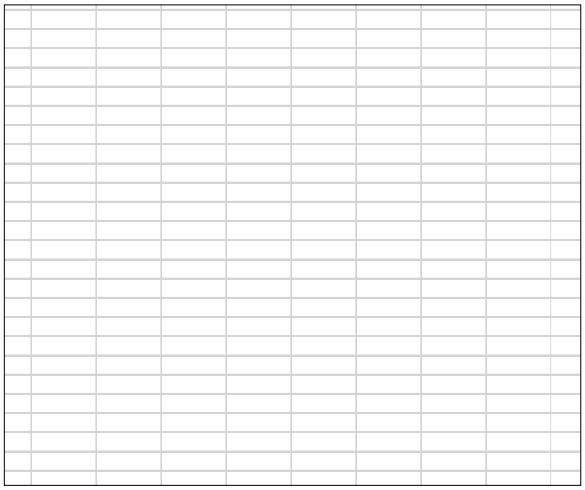


FIG.4: Normalized Collector Dark Current vs. Ambient Temperature

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

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

FIG.11: Test Circuits of Response Time

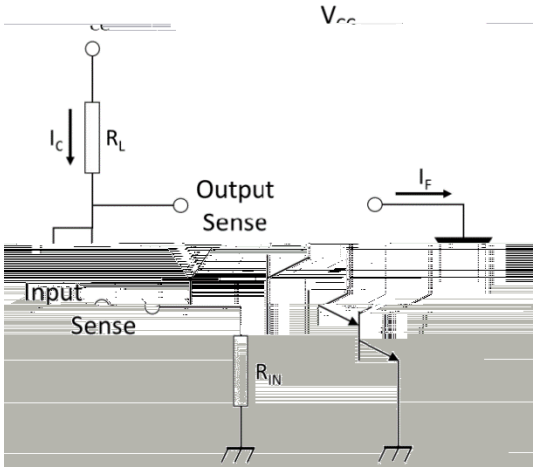
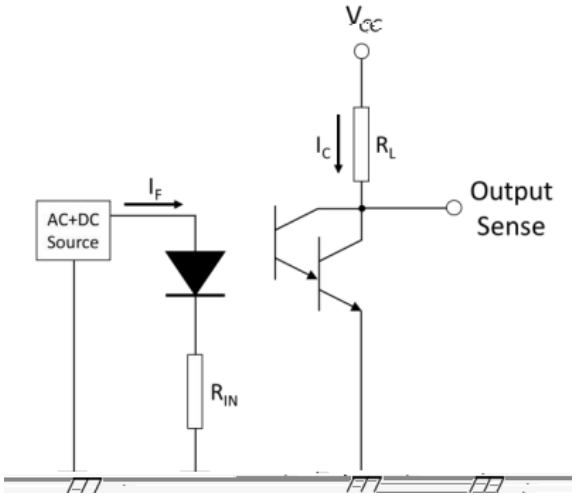


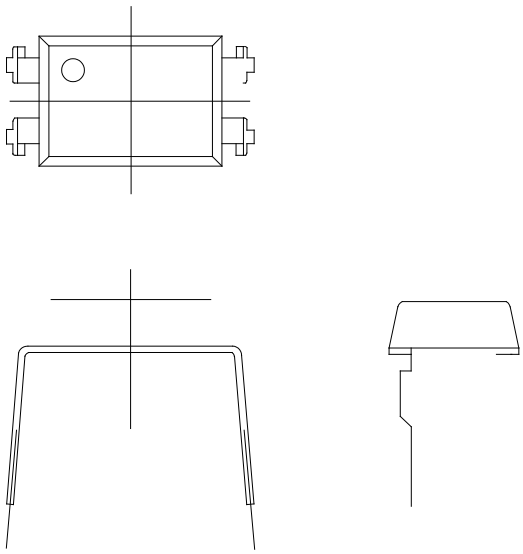
FIG.12: Curves of Response Time



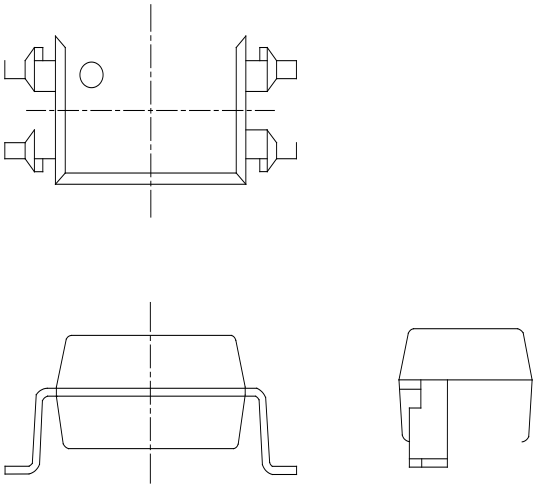
FIG.13: Test Circuits of Frequency Response



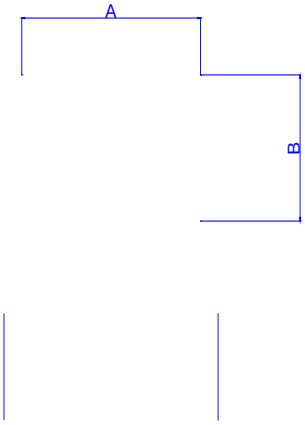
Standard DIP Type:



Option S Type:



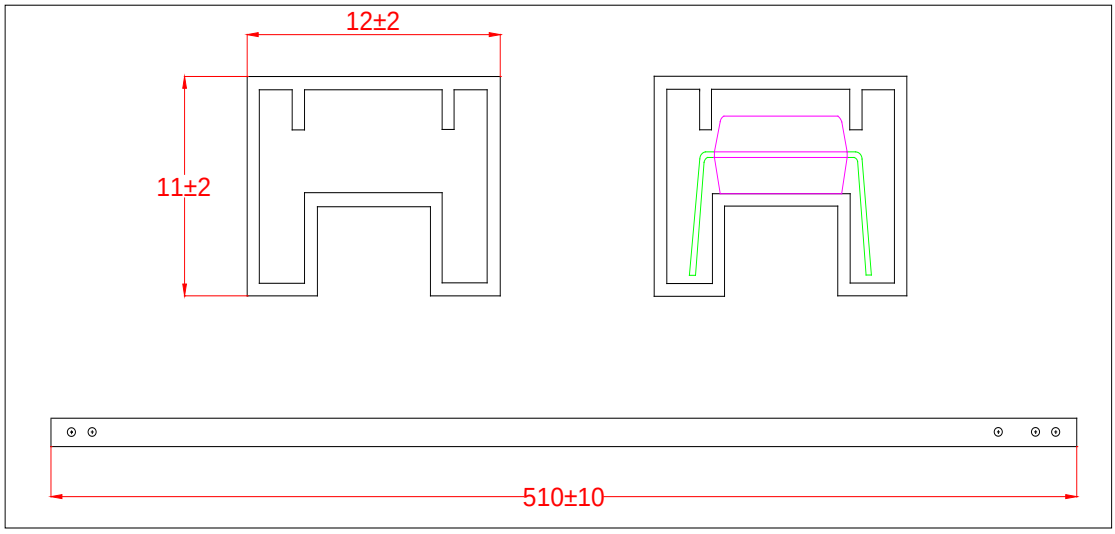
Option SLM Type: DimensionsMillimetersInches

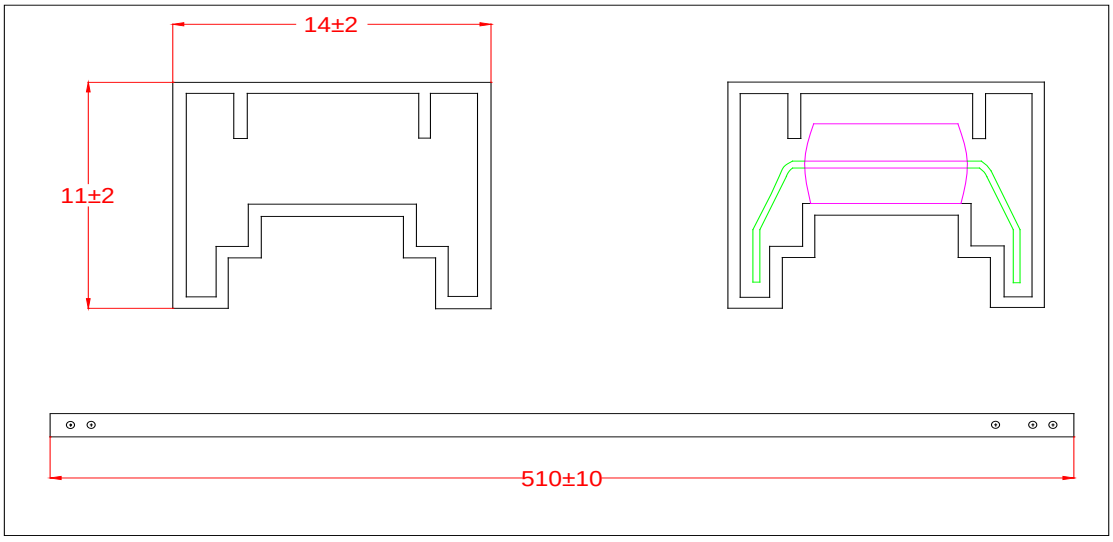


Option SL

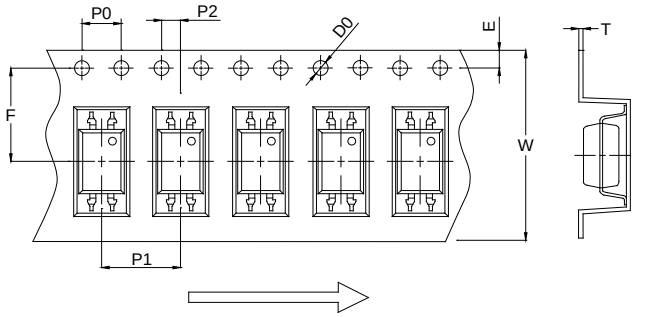


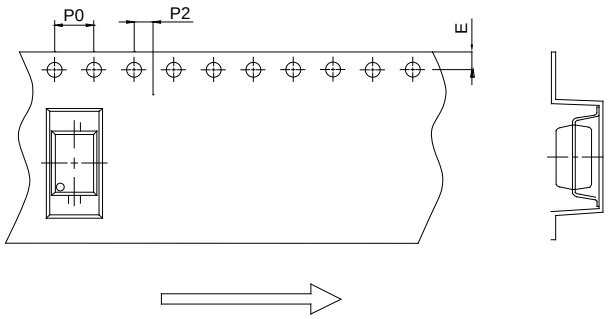
Standard DIP

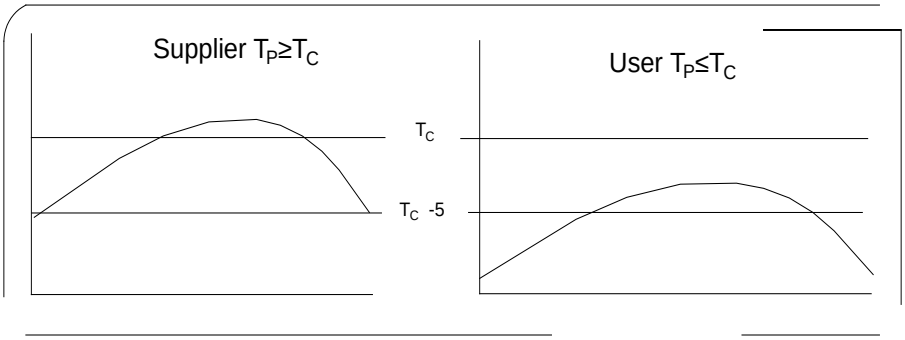


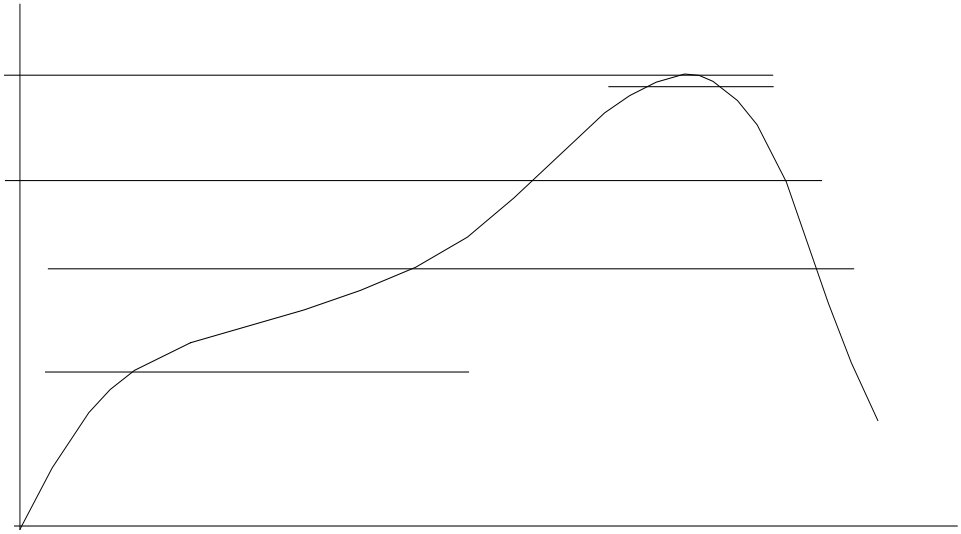


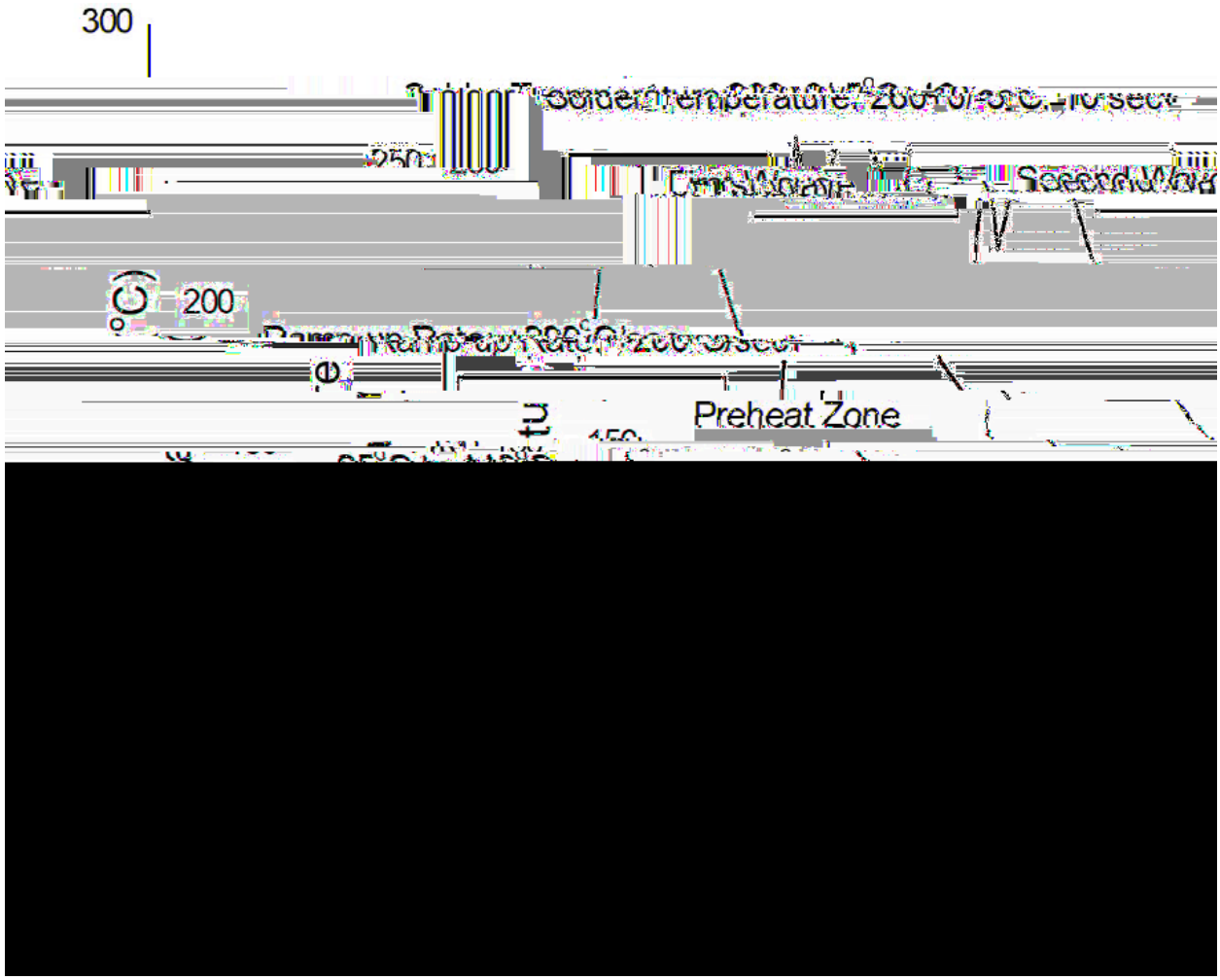
Option SLM(T1)






Supplier $T_P \geq T_C$
User $T_P \leq T_C$
T_C
T_C -5





Soldering Temperature	360 ± 5
Soldering Time	3s max.

JOC852