Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

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PC733H

High Input Current, AC Input Type Photocoupler

❋ Lead forming type（I type）and taping reel type（P type）are also available.（**PC733HI/PC733HP**）

■ Features

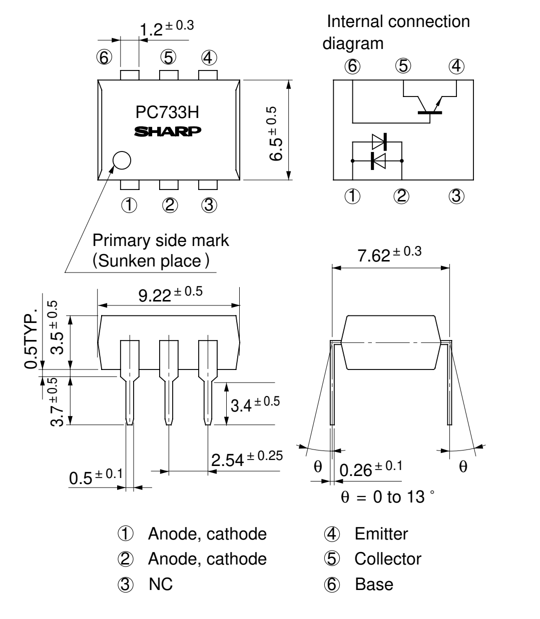
1. AC input response
2. High input current（I_F： MAX. 150mA）
3. High isolation voltage between input and output（V_{iso}： 5 000 V_{rms}）
4. Low collector dark current（I_{CEO} : MAX. 10^{-7}A at V_{CE} = 20V）
5. TTL compatible output
6. Recognized by UL, file No. E64380

■ Aapplications

1. Telephone sets
2. System appliances, measuring instruments
3. Signal transmission between circuits of different potentials and impedances

■ Outline Dimensions

（Unit : mm）



■ Absolute Maximum Ratings

（Ta= 25˚C）

	Parameter	Symbol	Rating	Unit
Input	Forward current	I_F	± 150	mA
	*1 Peak forward current	I_{FM}	± 1	A
	Power dissipation	P	230	mW
Output	Collector-emitter voltage	V_{CEO}	35	V
	Emitter-collector voltage	V_{ECO}	6	V
	Collector-base voltage	V_{CBO}	35	V
	Emitter-base voltage	V_{EBO}	6	V
	Collector current	I_C	80	mA
	Collector power dissipation	P_C	160	mW
	Total power dissipation	P_{tot}	320	mW
	*2 Isolation voltage	V_{iso}	5 000	V_{rms}
	Operating temperature	T_{opr}	- 25 to + 100	˚C
	Storage temperature	T_{stg}	- 55 to + 125	˚C
	*3 Soldering temperature	T_{sol}	260	˚C

*1 Pulse width<= 100μs, Duty ratio : 0.001
*2 40 to 60% RH, AC for 1 minute
*3 For 10 seconds

■ Electro-optical Characteristics

(Ta= 25˚C)

Parameter			Symbol	Conditions	MIN.	TYP.	MAX.	Unit
Input	Forward voltage		V_F	$I_F = \pm100mA$	-	1.4	1.7	V
	Peak forward voltage		V_{FM}	$I_{FM} = \pm0.5A$	-	-	3.0	V
	Terminal capacitance		C_t	V = 0, f = 1kHz	-	50	400	pF
Output	Collector dark current		I_{CEO}	$V_{CE} = 20V$, $I_F = 0$, $R_{BE} = \infty$	-	-	10^{-7}	A
Transfer charac-teristics	Current transfer ratio		CTR	$I_F = \pm100mA$, $V_{CE} = 2V$, $R_{BE} = \infty$	20	-	80	%
	Collector-emitter saturation voltage		$V_{CE\,(sat)}$	$I_F = \pm100mA$, $I_C = 1mA$, $R_{BE} = \infty$	-	0.1	0.2	V
	Isolation resistance		R_{ISO}	DC500V, 40 to 60% RH	5×10^{10}	10^{11}	-	Ω
	Floating capacitance		C_f	V = 0, f = 1MHz	-	0.6	1.0	pF
	Cut-off frequency		f_c	$V_{CE} = 5V$, $I_C = 2mA$, $R_L = 100\Omega$, $R_{BE} = \infty$, - 3dB	15	80	-	kHz
	Response time	Rise time	t_r	$V_{CE} = 2V$, $I_C = 2mA$,	-	4	18	μs
		Fall time	t_f	$R_L = 100\Omega$, $R_{BE} = \infty$	-	3	18	μs

Fig. 1 Forward Current vs. Ambient Temperature

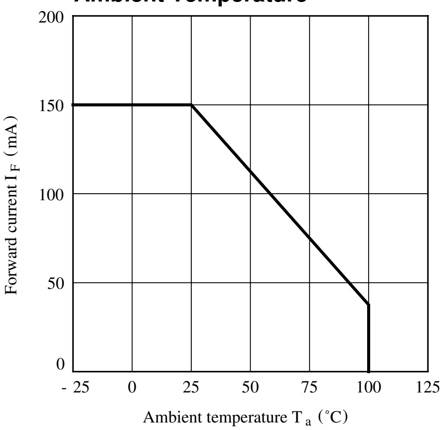


Fig. 2 Collector Power Dissipation vs. Ambient Temperature

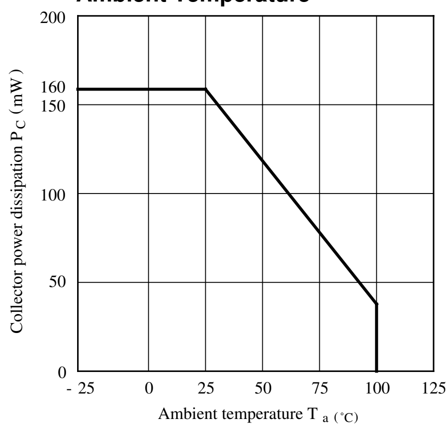


Fig. 3 Peak Forward Current vs. Duty Ratio

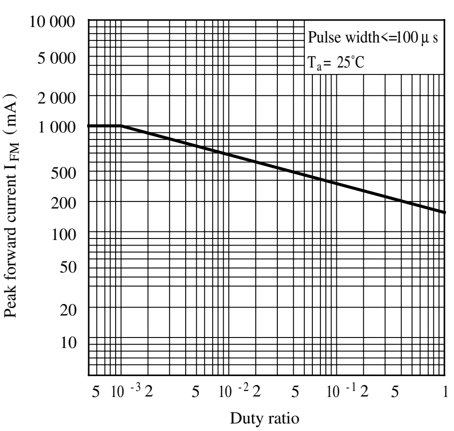


Fig. 4 Forward Current vs. Forward Voltage

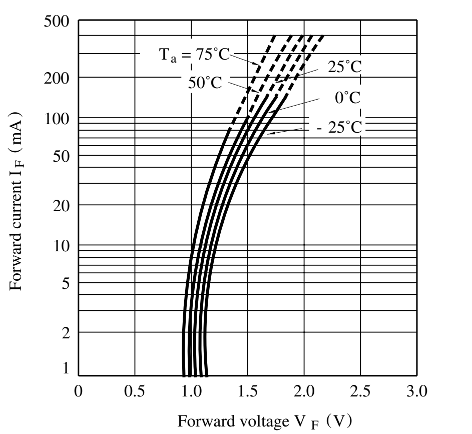


Fig. 5 Current Transfer Ratio vs. Forward Current

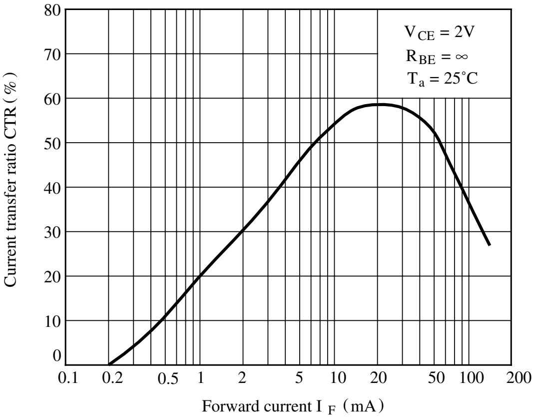


Fig. 6 Collector Current vs. Collector-emitter Voltage

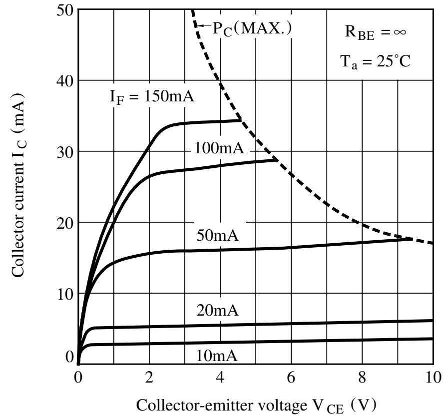


Fig. 7 Relative Current Transfer Ratio vs. Ambient Temperature

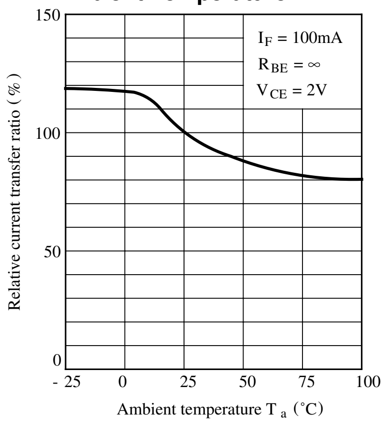


Fig. 8 Collector-emitter Saturation Voltage vs. Ambient Temperature

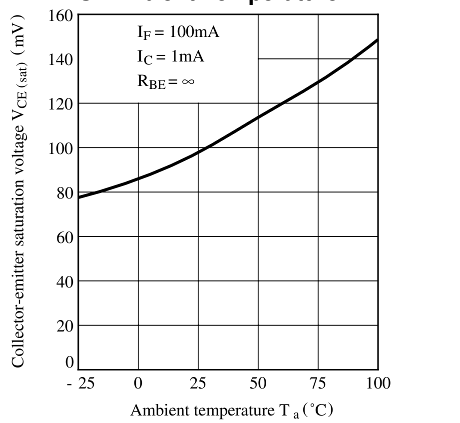


Fig. 9-a Collector Dark Current vs. Ambient Temperature

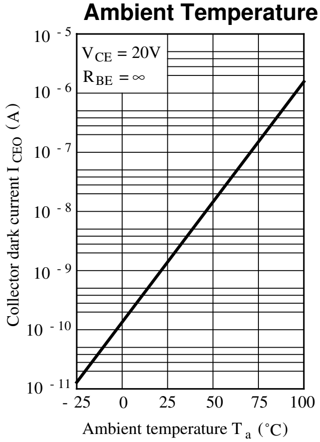


Fig. 9-b Collector-base Dark Current vs. Ambient Temperature

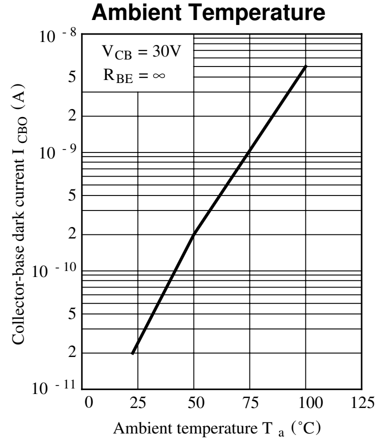


Fig.10 Response Time vs. Load Resistance

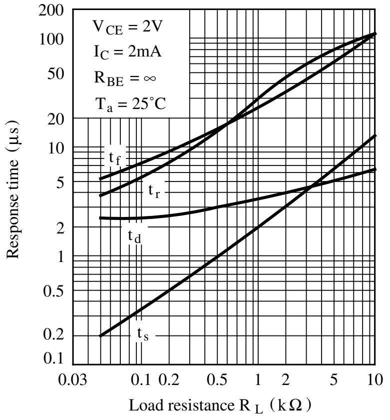
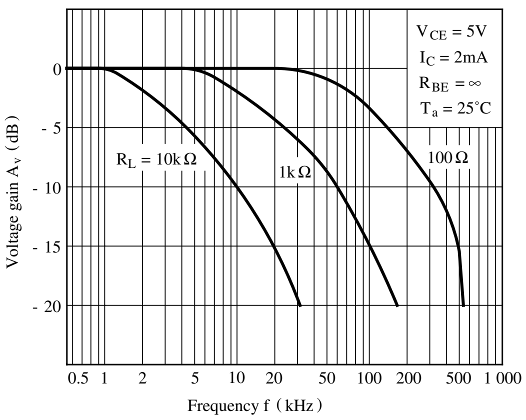


Fig.11 Frequency Response



Test Circuit for Response Time

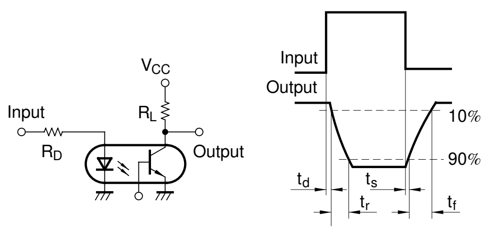
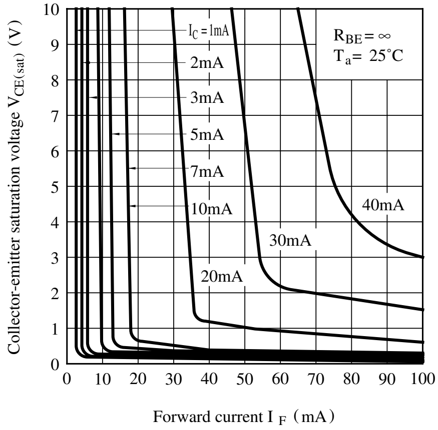
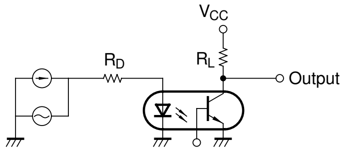


Fig.12 Collector-emitter Saturation Voltage vs. Forward Current



Test Circuit for Frequency Response



● Please refer to the chapter "Precautions for Use".

NOTICE