

NPN SILICON TRANSISTOR

CIL2383



Pin Configuration :

1. Emitter
2. Collector
3. Base

**TO-92L
Plastic Package**

ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless otherwise specified)

DESCRIPTION	SYMBOL	VALUE	UNIT
Collector Base Voltage	V _{CB0}	160	V
Collector Emitter Voltage	V _{CEO}	160	V
Emitter Base Voltage	V _{EBO}	6	V
Collector Current Continuous	I _C	1	A
Collector Power Dissipation	P _C	0.75	W
Junction Temperature Range	T _J	- 55 to 150	°C
Storage Temperature Range	T _{STG}	- 55 to 150	°C

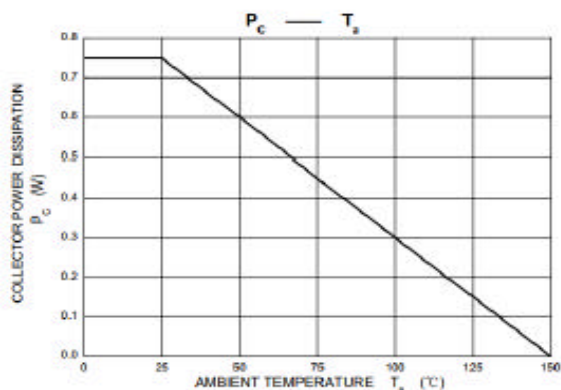
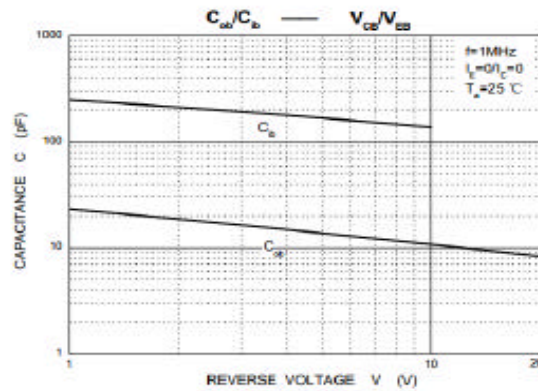
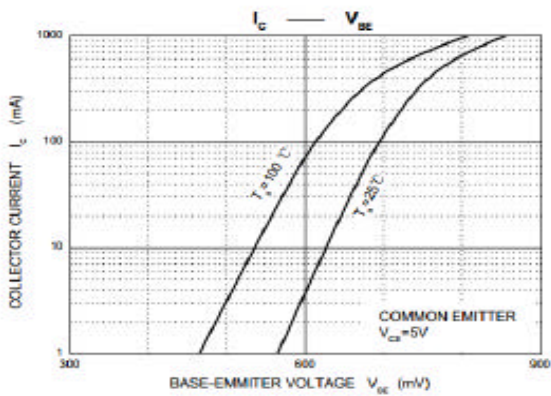
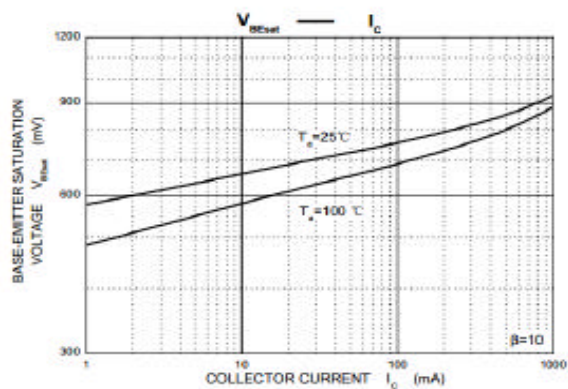
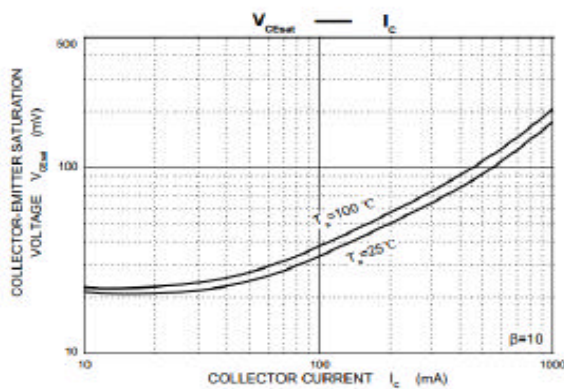
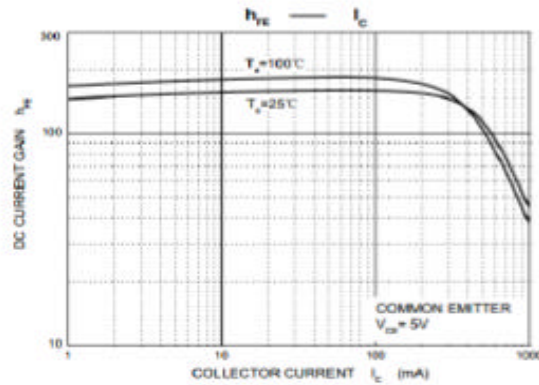
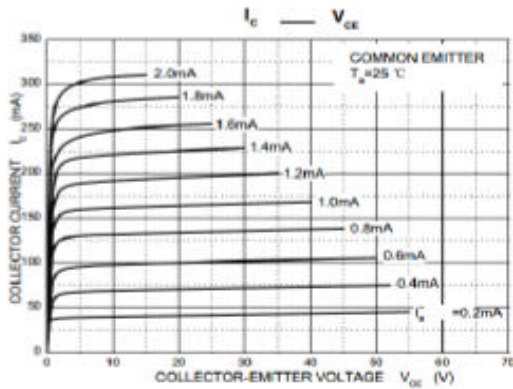
ELECTRICAL CHARACTERISTICS (T_A=25°C, unless otherwise specified)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	TYP	MAX	UNIT
Collector Base Breakdown Voltage	V _{CB0}	I _C =100µA, I _E =0	160			V
Collector Emitter Breakdown Voltage	V _{CEO}	I _C =10mA, I _B =0	160			V
Emitter Base Breakdown Voltage	V _{EBO}	I _E =10µA, I _C =0	6			V
Collector Cut off Current	I _{CB0}	V _{CB} =150V, I _E =0			1	µA
Collector Cut off Current	I _{CER}	V _{CB} =150V, R _{EB} =10MΩ			10	µA
Emitter Cut off Current	I _{EBO}	V _{EB} =6V, I _C =0			1	µA
DC Current Gain	* h _{FE 1}	I _C =200mA, V _{CE} =5V	60		320	
	h _{FE 2}	I _C =10mA, V _{CE} =5V	40			
Collector Emitter Saturation Voltage	V _{CE(sat)}	I _C =500mA, I _B =50mA			1	V
Base Emitter ON Voltage	V _{BE(ON)}	I _C =5mA, V _{CE} =5V			0.75	V
Transition Frequency	f _T	I _C =200mA, V _{CE} =5V	20			MHz

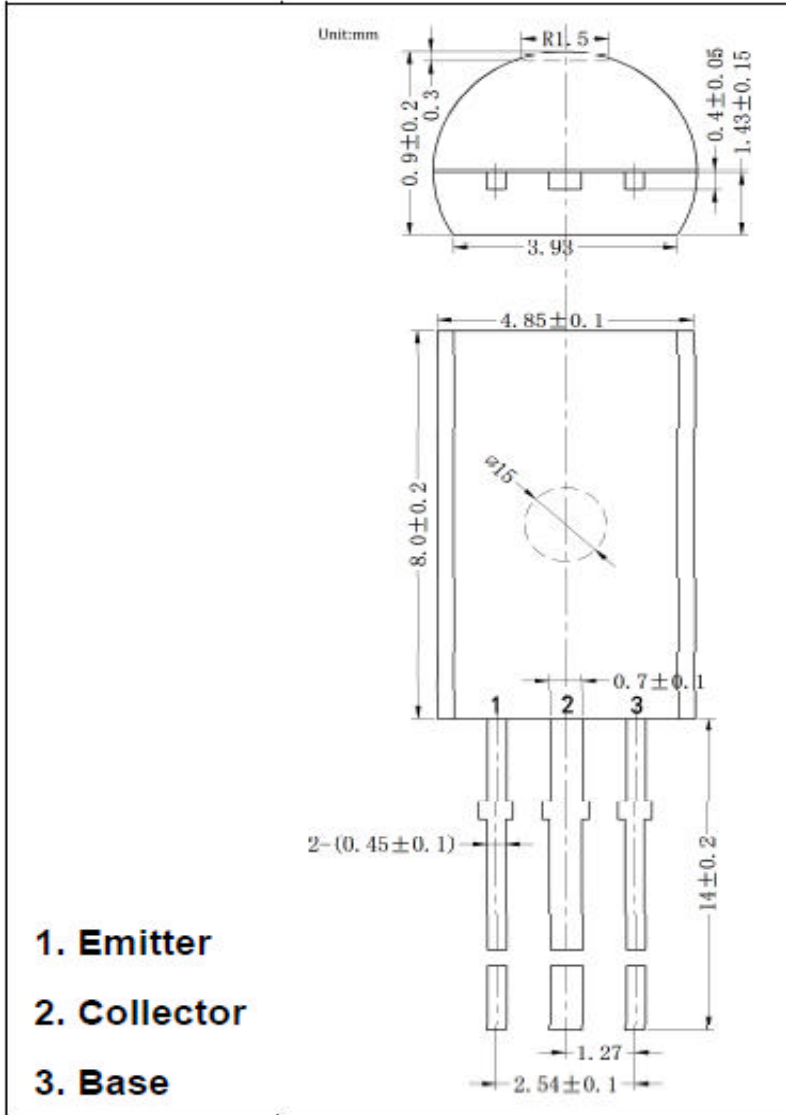
*** Classification of h_{FE 1}**

Range 'R' : 60 - 120	Range 'O' : 100 - 200	Range 'Y' : 160 - 320
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TYPICAL ELECTRICAL CHARACTERISTICS



TO-92L Plastic Package





Continental Device India Pvt. Limited

An ISO/TS 16949, ISO9001 and ISO 14001 Certified Company



Customer Notes

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.
2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Semiconductor Device(s) best suited for application in your product(s) as per your requirement. It is recommended that you completely review our Data Sheet(s) so as to confirm that the Device(s) meet functionality parameters for your application. The information furnished in the Data Sheet and on the CDIL Web Site/CD are believed to be accurate and reliable. CDIL however, does not assume responsibility for inaccuracies or incomplete information. Furthermore, CDIL does not assume liability whatsoever, arising out of the application or use of any CDIL product; neither does it convey any license under its patent rights nor rights of others. These products are not designed for use in life saving/support appliances or systems. CDIL customers selling these products (either as individual Semiconductor Devices or incorporated in their end products), in any life saving/support appliances or systems or applications do so at their own risk and CDIL will not be responsible for any damages resulting from such sale(s).

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