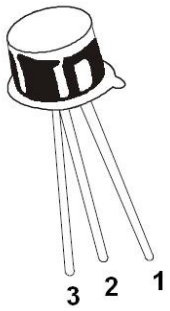
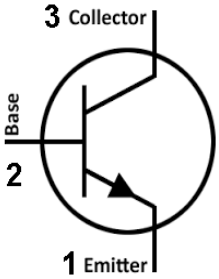
Continental Device India Pvt. Limited
An ISO/TS 16949, ISO 9001 and ISO 14001 Certified Company

NPN SILICON GENERAL PURPOSE TRANSISTOR





2N956
TO-18
Metal Can Package

MAXIMUN RATINGS

PARAMETERS	SYMBOL	VALUE	UNITS
Collector-Emitter Voltage	V_{CEO}	50	Vdc
Collector-Base Voltage	V_{CBO}	75	Vdc
Emitter-Base Voltage	V_{EBO}	7.0	Vdc
Total Device Dissipation @ T_A=25 ºC Derate above 25 ºC	P_D	500 2.86	mW mW/ºC
Total Device Dissipation @ T_C=25 ºC Derate above 25 ºC	P_D	1.8 10.3	mW mW/ºC
Operating and Storage Junction Temperature Range.	T_J , T_{stg}	-65 to 200	ºC

THERMAL CHARACTERISTICS

PARAMETERS	SYMBOL	VALUE	UNITS
Thermal Resistance, Junction to Ambient	$R_{\theta JA}$	350	ºC/W
Thermal Resistance, Junction to Case	$R_{\theta JC}$	97	ºC/W

ELECTRICAL CHARACTERISTICS (T_A= 25 ºC unless otherwise noted.)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNITS
OFF CHARACTERISTICS					
Collector-Emitter Breakdown Voltage (I_C=10 mA)	$V_{(BR)CEO}$	50	-	-	V
Collector-Base Breakdown Voltage. (I_C=100 µA, I_E=0)	$V_{(BR)CBO}$	75	-	-	V
Emitter-Base Breakdown Voltage. (I_E=100 µA, I_C=0)	$V_{(BR)EBO}$	7.0	-	-	V
Collector Cutoff Current (V_{CB}=60 V, I_E=0)	I_{CBO}	-	-	10	nA
Emitter Cutoff Current (V_{EB}=5.0 V, I_C=0)	I_{EBO}	-	-	10	nA
ON CHARACTERISTICS					
DC Current Gain	h_{FE}				-
(I_C= 0.01 mA, V_{CE}= 10V)		20	-	-	
(I_C= 0.1 mA, V_{CE}= 10V)		35	-	-	
(I_C= 10 mA, V_{CE}= 10V)		75	-	-	
(I_C= 150 mA, V_{CE}= 10V)[1]		100	-	300	
(I_C= 500 mA, V_{CE}= 10V)[1]		40	-	-	
Collector-Emitter Saturation Voltage[1] (I_C= 150 mA, I_B= 15 mA)	$V_{CE(sat)}$	-	-	1.5	V
Base-Emitter Saturation Voltage[1] (I_C= 150 mA, I_B= 15 mA)	$V_{BE(sat)}$	-	-	1.3	V

[1] Pulse Test: Pulse Width ≤ 300 µs, Duty Cycle ≤ 2.0%

ELECTRICAL CHARACTERISTICS (CONTINUES)(T_A= 25 ºC unless otherwise noted.)

PARAMETERS	SYMBOL	MIN	TYP	MAX	UNITS
Current-Gain – Bandwidth Product (I_C= 50 mA, V_{CE}= 10V, f= 20 MHz)	f_T	70	-	-	MHz
Output Capacitance (V_{CB} = 10 V, I_E = 0, f = 1MHz)	C_{obo}	-	-	25	pF
Input Capacitance (V_{EB}= 0.5 V, I_C = 0, f = 1MHz)	C_{ibo}	-	-	80	pF

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 is 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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