SOT-23 Formed SMD Package

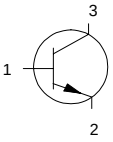
BF840
BF841

SILICON PLANAR TRANSISTORS

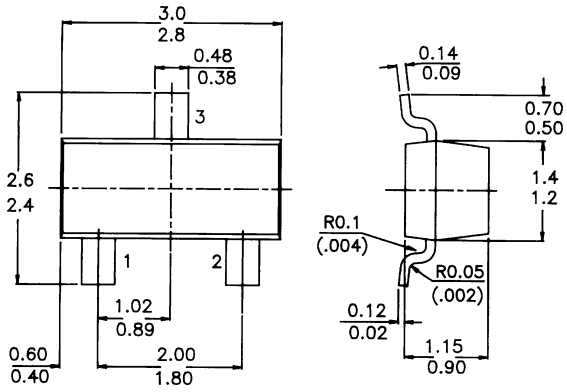
N–P–N transistors

Marking
BF840 = NC
BF841 = ND

Pin configuration
1 = BASE
2 = EMITTER
3 = COLLECTOR



PACKAGE OUTLINE DETAILS
ALL DIMENSIONS IN mm



ABSOLUTE MAXIMUM RATINGS

			BF840	***BF841***	
Collector–base voltage (open emitter)	V_{CB0}	*max.*	*40*		*V*
Collector–emitter voltage (open base)	V_{CE0}	*max.*	*40*		*V*
Collector current (d.c.)	I_C	*max.*	*25*		*mA*
Base current					
I_C = 1 mA; V_{CE} = 10V	I_B		*4,5–15*	*8–28*	mA
Total power dissipation up to T_{amb} = 25 °C	P_{tot}	*max.*	*250*		mW
Junction temperature	T_j	*max.*	*150*		° C
Feedback capacitance at f = 1 MHz					
I_C = 1 mA; V_{CE} = 10V	*Cre*	*typ.*	*0,3*		*pF*

RATINGS *(at T_A = 25°C unless otherwise specified)*

Limiting values			
Collector–base voltage (open emitter)	V_{CB0}	*max.*	*40 V*
Collector–emitter voltage (open base)	V_{CE0}	*max.*	*40 V*
Emitter–base voltage (open collector)	V_{EB0}	*max.*	*4 V*
Collector current (d.c.)	I_C	*max.*	*25 mA*
*Total power dissipation up to T_{amb} = 25 °C**	P_{tot}	*max.*	*250* mW
Storage temperature	T_{stg}		*–55 to +150 °C*
Junction temperature	T_j	*max.*	*150 ° C*

THERMAL RESISTANCE

From junction to ambient	$R_{th\ j-a}$		*500* K/W

CHARACTERISTICS

T_j = 25 °C unless otherwise specified

Collector cut–off current					
I_E = 0; V_{CB} = 20 V	I_{CBO}	*max.*	*100*	*100*	*nA*
Base–emitter voltage					
I_C = 1 mA; V_{CE} = 10 V	V_{BE}	*typ.*	*700*	*700*	*mV*
			650 to 740	*650 to 740*	*mV*
			BF840	***BF841***	
Base current					
I_C: 1 mA; V_{CE} = 10 V	I_B		*4,5–15*	*8–28*	mA
Transition frequency at f = 100 MHz					
I_C = 1 mA; V_{CE} = 10 V	f_T	*typ.*	*380*	*380*	MHz
Feedback capacitance at f = 1 MHz					
I_C = 1 mA; V_{CE} = 10 V	C_{re}	*typ.*	*0,3*	*0,3*	*pF*
Noise figure					
I_C = 1 mA; V_{CE} = 10 V;					
f = 0,2 MHz; R_S = 200 W	*F*	*typ.*	*1,5*	*2,0*	*dB*

Notes

Disclaimer

The product information and the selection guides facilitate selection of the CDIL's Discrete 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 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 Discrete 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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