NEW ENGLAND SEMICONDUCTOR

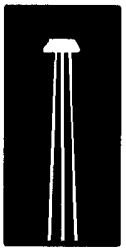
C9853

LOW LEVEL SWITCHING
SILICON EPITAXIAL JUNCTION
PNP TRANSISTORS

- ULTRA LOW LEAKAGE
- LOW C_{ob}
- LOW r_{EC} (sat)
- HIGH BV_{EBO}

ELECTRICAL DATA ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	C9853	UNITS
Collector To Emitter Voltage	BV_{CEO}	50	Volts
Collector To Base Voltage	BV_{CBO}	50	Volts
Emitter To Base Voltage	BV_{EBO}	40	Volts
Collector Current	I_C	100	mA
Total Power Dissipation (free air)	P_D	400	mW
Storage Temp. (max)	T_{stg}	200	°C
Operation Temp. (max)	T_{opr}	200	°C
Lead Temp (@ 1/16 — 1/32 from case)	T_L	240 for 10 sec	
Derating Factor	D_F	2.3	mW/°C



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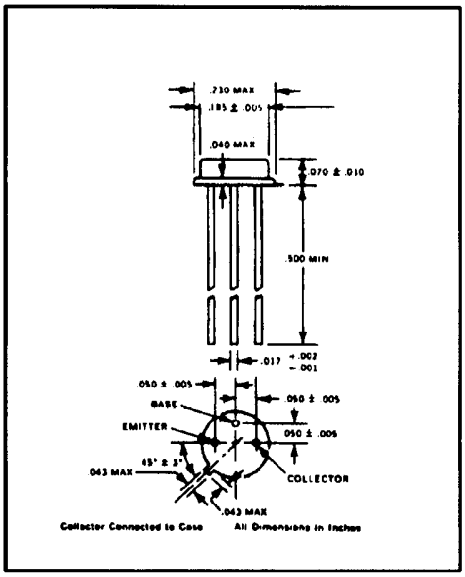
ELECTRICAL CHARACTERISTICS: T_A = 25°C (UNLESS OTHERWISE STATED)

			C9853			
PARAMETER	SYMBOL	CONDITIONS	Min.	Typ.	Max.	UNITS
Collector Leakage	I_{CBO}	At Max Rated Voltage	—	0.04	0.5	nA
Emitter Leakage	I_{EBO}	At Max Rated Voltage	—	0.04	0.5	nA
Collector Leakage at 100°C	I_{CBO}	At Max Rated Voltage	—	4.0	25	nA
Emitter Leakage at 100°C	I_{EBO}	At Max Rated Voltage	—	4.0	20	nA
Offset Voltage	V_O	I_B = 200µA, I_E = 0	—	0.5	0.8	mV
Offset Voltage	V_O	I_B = 1mA, I_E = 0	—	1.0	2.0	mV
Offset Voltage	V_O	I_B = 2mA, I_B = 0	—	1.3	2.5	mV
D.C. Common Emitter Forward Current Transfer Ratio	h_{FE}	V_{CE} = −0.5V, IC = 1 mA	50	100	—	
D.C. Common Collector Forward Current Transfer Ratio	h_{fc}	V_{EC} = −0.5V, I_B = 200µA	20	—	—	
High Frequency Current Gain	h_{fe}	f = 1MHz, V_{CE} = −6V, I_{CE} = 1mA	5	—	—	
Inverted Dynamic Saturation Resistance	$r_{EC(sat)}$	I_B = 0.1mA, I_B = 1mA f = 1kHz	—	—	8	Ohms
Collector To Base Capacitance	C_{ob}	V_{CB} = −6V, I_C = 1mA	—	—	10	pfd
Emitter To Base Capacitance	C_{eb}	V_{EB} = −6V, I_E = 0	—	—	6	pfd



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