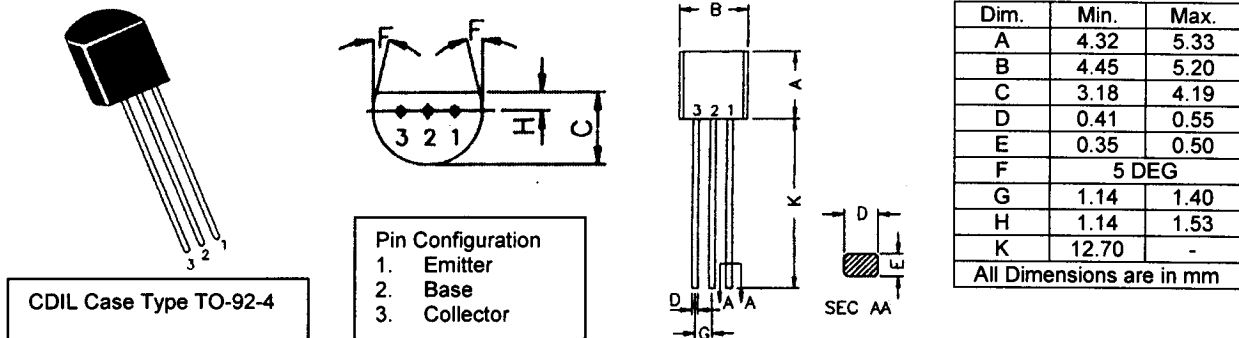


TO-92 Plastic Package Transistor

CDIL – BC238B NPN Transistor – Style TO-92-4



Maximum Ratings

Collector - Base Breakdown Voltage, Emitter Open	V_{CBO}	Min.	30	V
Collector - Emitter Breakdown Voltage, Base Open	V_{CEO}	Min.	25	V
Emitter - Base Breakdown Voltage, Collector Open	V_{EBO}	Min.	5	V
Allowable Power Dissipation @ $T_c = 25^\circ\text{C}$	P_D		0.1	W
Collector Current	I_C		0.35	A

Electrical Characteristics ($T_a=25^\circ\text{C}$, Unless Otherwise Specified)

Collector Cut Off Current, Emitter Open @ Collector Base Voltage	I_{CBO} V_{CB}	Max.	-	μA V
Collector Cut Off Current, with Emitter & Base Shorted @ Collector Emitter Voltage	I_{CES} V_{CE}	Max.	0.015 30	μA V
Small Signal, Current Gain, Common Emitter @ Collector Current & Collector - Emitter Voltage	h_{FE} I_C V_{CE}	Min. Max.	200 460	
Collector - Emitter Saturation Voltage & Base - Emitter Saturation Voltage @ Collector Current	$V_{CE(SAT)}$ $V_{BE(SAT)}$ I_C	Max. Min. Max.	0.2 - 0.83	V V V
Output Capacitance, Common Base	C_{ob}	Max.	4.5	pF
Transition Frequency (common emitter, gain bandwidth product) @ Collector Current	f_t I_C	Min. Typ.	150 10	MHz mA
Turn-off Time ($t_s + t_f$)	$t_{(off)}$	Max.	-	ns
Common Source Noise Figure @ Frequency	NF	Max.	10	dB MHz