

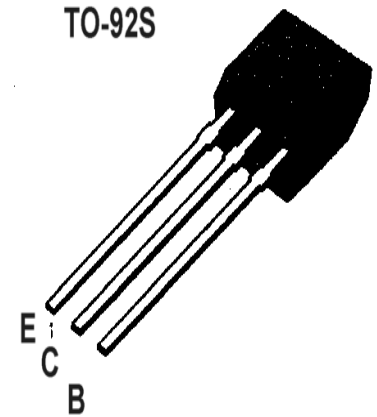
NPN Transistors

—NPN Silicon—

■■ APPLICATION: Audio Muting Applications.

■■ MAXIMUM RATINGS (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V <sub>CBO</sub>	25	V
Collector-emitter voltage	V <sub>CEO</sub>	20	V
Emitter-base voltage	V <sub>EBO</sub>	12	V
Collector current	I <sub>c</sub>	0.3	A
Base current	I <sub>b</sub>	0.03	A
Collector Power Dissipation	P <sub>c</sub>	0.4	W
Junction Temperature	T <sub>j</sub>	150	°C
Storage Temperature Range	T <sub>stg</sub>	-55~150	°C



■■ ELECTRICAL CHARACTERISTICS (Ta=25°C, R<sub>G</sub>=10Ω)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION		
Collector-Base Breakdown Voltage	BV <sub>cbo</sub>	25			V	I <sub>c</sub> =10uA	I <sub>e</sub> =0	
Collector-Emitter Breakdown Voltage	BV <sub>ceo</sub>	20			V	I <sub>c</sub> =1mA	I <sub>b</sub> =0	
Emitter-Base Breakdown Voltage	BV <sub>ebo</sub>	12			V	I <sub>e</sub> =10uA	I <sub>c</sub> =0	
Collector Cut-off Current	I <sub>cbo</sub>			0.1	uA	V <sub>cb</sub> =25V	I <sub>e</sub> =0	
Emitter Cut-off Current	I <sub>ebo</sub>			0.1	uA	V <sub>eb</sub> =12V	I <sub>c</sub> =0	
Base-Emitter Saturation Voltage	V <sub>be(sat)</sub>			1	V	I <sub>c</sub> =0.1A	I <sub>b</sub> =10mA	
Collector-Emitter Saturation Voltage	V <sub>ce(sat)</sub>			0.25	V	I <sub>c</sub> =0.1A	I <sub>b</sub> =1mA	
DC Current Gain	h <sub>FE</sub>	200		800	β	V <sub>ce</sub> =2V	I <sub>c</sub> =4mA	
Gain bandwidth product	f <sub>T</sub>		60		MHz	V <sub>ce</sub> =10V	I <sub>c</sub> =1mA	
Common Base Output Capacitance	C <sub>ob</sub>		10		pF	V <sub>cb</sub> =10V	I <sub>e</sub> =0	f=1MHz

■■ h<sub>FE</sub> Classification And Marking

Mark D1303

Classification

h<sub>FE</sub> 200~800