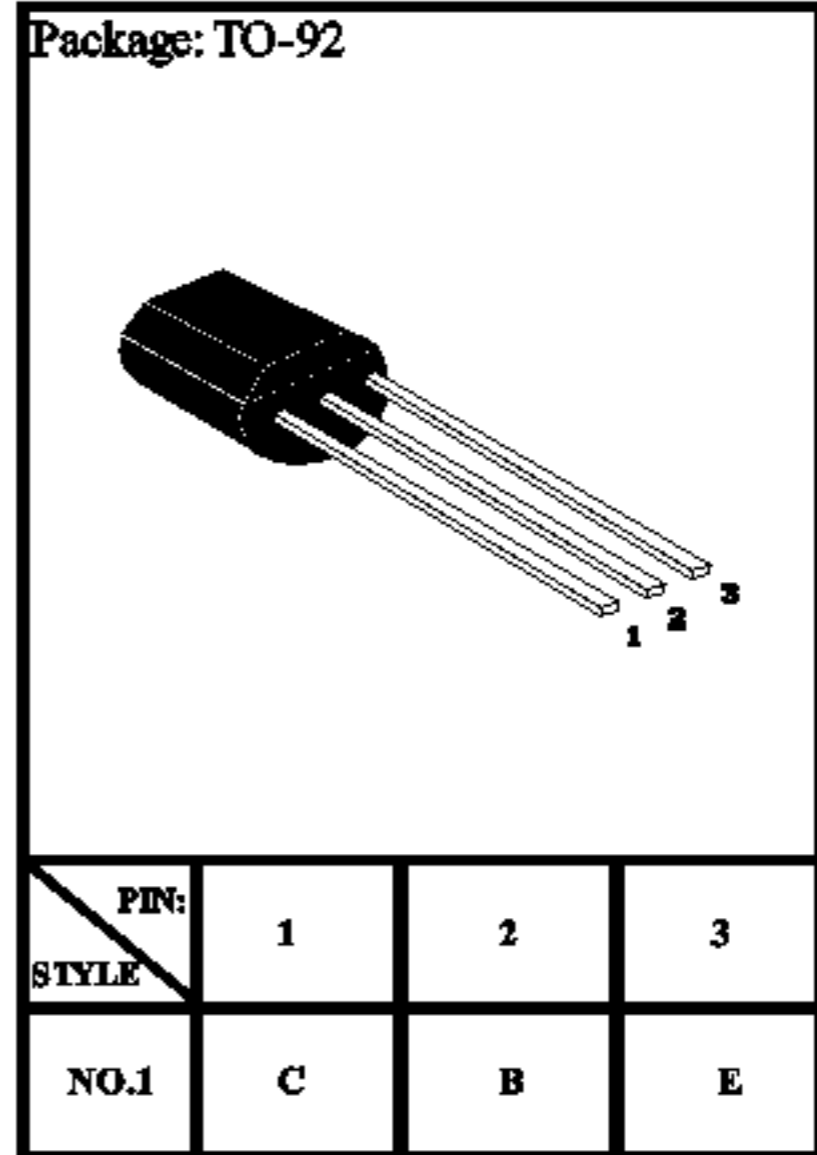




# SWITCHING AND AMPLIFIER APPLICATIONS

2



### ABSOLUTE MAXIMUM RATINGS at Tamb=25°C

Characteristic	Symbol	Rating	Unit
Collector-Emitter Voltage	Vces	-50	V
Collector-Emitter Voltage	Vceo	-45	V
Emitter-Base Voltage	Vebo	-5	V
Collector Current	Ic	-100	mA
Collector Dissipation	Pc	500	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~150	°C

### ELECTRICAL CHARACTERISTICS at Tamb=25°C

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Emitter Voltage (E.-B. Short)	BVces	-50			V	Ic=-10uA Veb=0
Collector-Emitter Breakdown Voltage	BVceo	-45			V	Ic=-2mA Ib=0
Emitter-Base Breakdown Voltage	BVebo	-5			V	Ie=-10uA Ic=0
Collector Cutoff Current	Ices			-50	nA	Vce=-45V Veb=0
DC Current Gain	Hfe	120		800		Vce=-5V Ic=-2mA
Collector-Emitter Saturation Voltage	Vce(sat)			-0.3	V	Ic=-10mA Ib=-0.5mA
Collector-Emitter Saturation Voltage	Vce(sat)		-0.50	-0.6	V	Ic=-100mA Ib=-5mA
Base-Emitter Saturation Voltage	Vbe(sat)		-0.70	-0.8	V	Ic=-10mA Ib=-0.5mA
Base-Emitter Saturation Voltage	Vbe(sat)		-0.85	-1.1	V	Ic=-100mA Ib=-5mA
Base-Emitter On Voltage	Vbe(on)	-0.55	-0.62	-0.7	V	Vce=-5V Ic=-2mA
Collector-Base Capacitance	Ccb			6	pF	Vcb=-10V f=1MHz
Emitter-Base Capacitance	Ceb		12		pF	Veb=-0.5V f=1MHz
Current Gain-Bandwidth Product	fT		130		MHz	Vce=-5V Ic=-10mA f=50MHz
Noise Figure	NF			10	dB	Vce=-5V Ic=-0.2mA f=1KHz Rg=2KΩ

### CLASSIFICATION HFE

Classification	A	B	C
Hfe	120-220	180-460	380-800