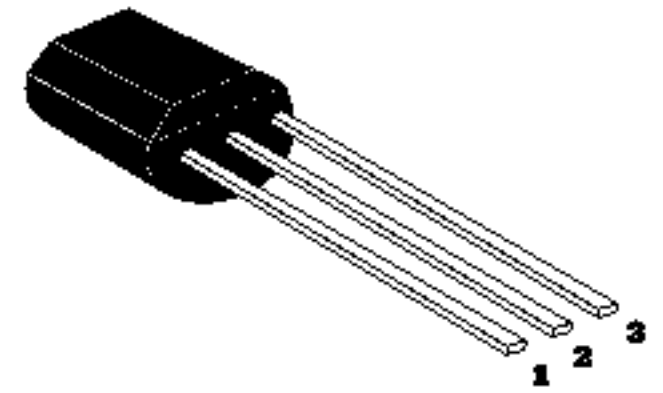




GENERAL PURPOSE TRANSISTOR

2

Package: TO-92



ABSOLUTE MAXIMUM RATINGS at Tamb=25°C

Characteristic	Symbol	Rating	Unit
Collector-Base Voltage	Vcbo	30	V
Collector-Emitter Voltage	Vceo	20	V
Emitter-Base Voltage	Vebo	5	V
Collector Current	Ic	100	mA
Collector Dissipation	Pc	300	mW
Junction Temperature	Tj	150	°C
Storage Temperature	Tstg	-55~150	°C

PIN:	1	2	3
STYLE			
NO.1	C	B	E

ELECTRICAL CHARACTERISTICS at Tamb=25°C

Characteristic	Symbol	Min	Typ	Max	Unit	Test Conditions
Collector-Base Breakdown Voltage	BVcbo	30			V	Ic=100uA Ie=0
Collector-Emitter Breakdown Voltage	BVceo	20			V	Ic=1mA Ib=0
Emitter-Base Breakdown Voltage	BVebo	5			V	Ie=100uA Ic=0
Collector Cutoff Current	Icbo			50	nA	Vcb=20V Ie=0
Emitter Cutoff Current	Iebo			50	nA	Veb=5V Ic=0
DC Current Gain	Hfe	110		800		Vce=5V Ic=2mA
Collector-Emitter Saturation Voltage	Vce(sat)		0.09	0.25	V	Ic=10mA Ib=0.5mA
Collector-Emitter Saturation Voltage	Vce(sat)		0.20	0.6	V	Ic=100mA Ib=5mA
Base-Emitter Saturation Voltage*	Vbe(sat)		0.90		V	Ic=100mA Ib=5mA
Base-Emitter Saturation Voltage*	Vbe(sat)		0.70		V	Ic=10mA Ib=0.5mA
Base-Emitter On Voltage#	Vbe(on)			0.77	V	Vce=5V Ic=10mA
Base-Emitter On Voltage#	Vbe(on)	0.55	0.62	0.7	V	Vce=5V Ic=2mA
Collector Capacitance	Cc		2.5	6	pF	Vcb=10V Ie=0 f=1MHz
Transition Frequency	fT	100			MHz	Vce=5V Ic=10mA f=100MHz
Noise Figure	NF			10	dB	Vce=5V Ic=200uA f=1KHz Rs=2KΩ B=200Hz

* Vbesat decreases by about 1.7mV/K with increasing temperature

Vbe(on) decreases by about 2mV/K with increasing temperature

CLASSIFICATION HFE

Classification	A	B	C
Hfe	110-220	200-450	420-800