

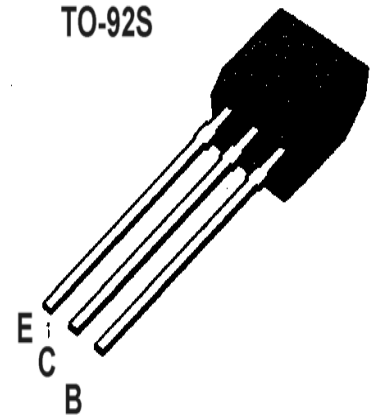
NPN Transistors

—NPN Silicon—

■ ■ **APPLICATION:** General purpose applications.

■ ■ **MAXIMUM RATINGS** (Ta=25°C)

PARAMETER	SYMBOL	RATING	UNIT
Collector-base voltage	V _{CBO}	75	V
Collector-emitter voltage	V _{CEO}	40	V
Emitter-base voltage	V _{EBO}	5	V
Collector current	I _C	0.6	A
Collector Power Dissipation	P _C	0.3	W
Junction Temperature	T _j	150	°C
Storage Temperature Range	T _{stg}	55~150	°C



■ ■ **ELECTRICAL CHARACTERISTICS** (Ta=25°C, RG=10Ω)

PARAMETER	SYMBOL	MIN.	TYP.	MAX.	UNIT	TEST CONDITION		
Collector-Base Breakdown Voltage	BV _{CBO}	75			V	I _C =0.1mA	I _E =0	
Collector-Emitter Breakdown Voltage	BV _{CEO}	40			V	I _C =1mA	I _B =0	
Emitter-Base Breakdown Voltage	BV _{EBO}	5			V	I _E =0.1mA	I _C =0	
Collector Cut-off Current	I _{CBO}			0.1	uA	V _{CB} =50V	I _E =0	
Emitter Cut-off Current	I _{EBO}			0.1	uA	V _{EB} =5V	I _C =0	
Base-Emitter Saturation Voltage	V _{BE(sat)}			1.2	V	I _C =0.15A	I _B =15mA	
Collector-Emitter Saturation Voltage	V _{CE(sat)}			0.3	V	I _C =0.15A	I _B =15mA	
DC Current Gain	H _{FE}	100		300	β	V _{CE} =10V	I _C =150mA	
Gain bandwidth product	f _T	250			MHz	V _{CE} =20V	I _C =20mA	
Common Base Output Capacitance	C _{ob}			8	pF	V _{CB} =10V	I _E =0	f=1MHz
Turn on Time	t _{on}			35	ns	V _{CC} =30V	I _C =0.15A	I _{B1} =-15mA
Turn off Time	t _{off}			285	ns	V _{CC} =30V	I _{B1,2} =-15mA	I _C =0.15A

■ ■ **H_{FE} Classification And Marking**

Print Mark	2N2222A
Classification	
H _{FE}	100~300