

FEATURES

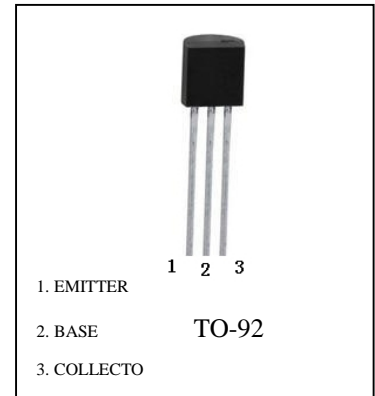
High voltage

MARKING:A42

MAXIMUM RATINGS (TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	$V_{CBO}$	300	V
Collector-Emitter Voltage	$V_{CEO}$	300	V
Emitter-Base Voltage	$V_{EBO}$	5	V
Collector Current -Continuous	$I_C$	500	mA
Collector Power Dissipation	$P_C$	625	mW
Junction Temperature	$T_J$	150	°C
Storage Temperature	$T_{stg}$	-55-150	°C
Thermal Resistance, junction to Ambient	$R_{JA}$	200	°C/mW
Thermal Resistance, unction to Case	$R_{JC}$	83.3	°C/mW

A42 (NPN)



ELECTRICAL CHARACTERISTICS (Tamb=25 °C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=100\mu A, I_E=0$	300			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	300			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=100\mu A, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=200V, I_E=0$			0.25	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=5V, I_C=0$			0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=10V, I_C=1mA$	60			
	$h_{FE(2)}$	$V_{CE}=10V, I_C=10mA$	80		250	
	$h_{FE(3)}$	$V_{CE}=10V, I_C=30mA$	75			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=20mA, I_B=2mA$			0.2	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=20mA, I_B=2mA$			0.9	V
Transition frequency	$f_T$	$V_{CE}=20V, I_C=10mA, f=30MHz$	50			MHz

CLASSIFICATION OF HFE

Rank	A	B1	B2	C
Range	80-100	100-150	150-200	200-250

A42 Typical Characteristics

