

TRANSISTOR (NPN)

FEATURES

- High hFE
- Complementary to KTA1505

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

Symbol	Parameter	Value	Units
V _{CB0}	Collector-Base Voltage	35	V
V _{CEO}	Collector-Emitter Voltage	30	V
V _{EBO}	Emitter-Base Voltage	5	V
I _C	Collector Current -Continuous	500	mA
P _C	Collector Power Dissipation	200	mW
T _j	Junction Temperature	150	°C
T _{stg}	Storage Temperature	-55-150	°C

SOT-23



1. BASE
2. EMITTER
3. COLLECTOR

ELECTRICAL CHARACTERISTICS (T_{amb}=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	V _{(BR)CBO}	I _C =100 μ A, I _E =0	35			V
Collector-emitter breakdown voltage	V _{(BR)CEO}	I _C = 1mA, I _B =0	30			V
Emitter-base breakdown voltage	V _{(BR)EBO}	I _E = 100 μ A, I _C =0	5			V
Collector cut-off current	I _{CB0}	V _{CB} = 35V, I _E =0			0.1	μ A
Emitter cut-off current	I _{EBO}	V _{EB} = 5V, I _C =0			0.1	μ A
DC current gain	h _{FE1}	V _{CE} =1V, I _C = 100mA	70		400	
	h _{FE2}	V _{CE} =6V, I _C = 400mA	25	O		
			40	Y		
Collector-emitter saturation voltage	V _{CE(sat)}	I _C =100mA, I _B = 10mA			0.25	V
base-emitter voltage	V _{BE}	V _{CE} =1V, I _B = 100mA			1	V
Transition frequency	f _T	V _{CE} =6V, I _C =20mA		300		MHz
Collector output capacitance	C _{ob}	V _{CB} =6V, I _E =0, f=1MHz		7		pF

CLASSIFICATION OF h_{FE}

Rank	O	Y	GR(G)
Range	70-140	120-240	200-400
Marking	WO	WY	WG

Typical Characteristics

