KTC3879 (NPN)

FEATURES

• High power gain

1. BASE
2. EMITTER
3. COLLECTO

SOT-23

Maximum Ratings (Ta=25 ℃ unless otherwise noted)

Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	35	V
Collector-Emitter Voltage	V_{CEO}	30	V
Emitter-Base Voltage	V_{EBO}	4	V
Collector Current -Continuous	I_C	50	mA
Collector Power dissipation	P_C	0.15	W
Junction Temperature	T_J	150	℃
Storage Temperature	Tstg	-55to +150	℃

ELECTRICAL CHARACTERISTICS (@ Ta=25 ℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=100μA,I_E=0	35			V
Collector-emitter breakdown voltage	V_{CEO}	I_C=100μA,I_B=0	30			V
Emitter-base breakdown voltage	V_{EBO}	I_E=100μA,I_C=0	4			V
Collector cut-off current	I_{CBO}	V_{CB}=35V,I_E=0			0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=4V,I_C=0			1.0	μA
DC current gain	h_{FE}	V_{CE}=12V,I_C=2mA	40		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=10mA, I_B=1mA			0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=10mA, I_B=1mA			1.0	V
Transition frequency	f_T	V_{CE}=10V, I_C= 1mA	100		400	MHz
Collector output capacitance	Cob	V_{CB}=10V,IE=0,f=1MHz	1.4	2.0	3.2	pF

CLASSIFICATION OF h_{FE}

Rank	R	O	Y
Range	40-80	70-140	120-240
Marking	RR	RO	RY

KTC3879 Typical Characteristics