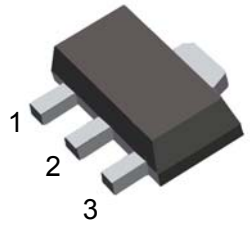
TRANSISTOR (PNP)

SOT-89



1. BASE
2. COLLETOR
3. EMITTER

FEATURES

Low speed switching

MAXIMUM RATINGS (T_A=25℃ unless otherwise noted)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-40	V
V_{CEO}	Collector-Emitter Voltage	-30	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-3	A
P_C	Collector Power Dissipation	0.5	W
$R_{\theta JA}$	Thermal Resistance, junction to Ambient	250	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55-150	℃

ELECTRICAL CHARACTERISTICS (Tamb=25℃ unless otherwise specified)

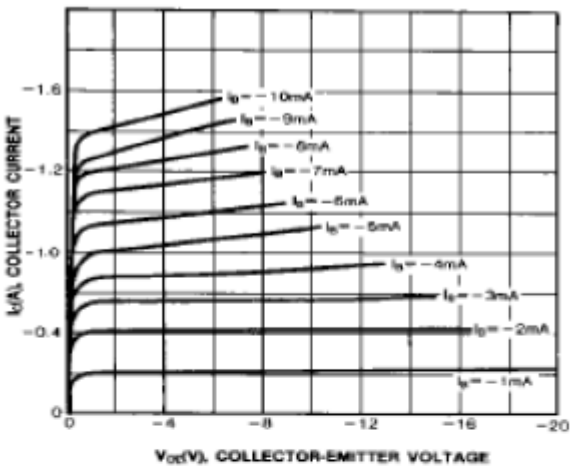
Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA ,I_E=0	-40			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C= -10mA , I_B=0	-30			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E= -100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}= -40V, I_E=0			-1	μA
Collector cut-off current	I_{CEO}	V_{CE}=-30V, I_B=0			-10	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-6V, I_C=0			-1	μA
DC current gain	h_{FE}	V_{CE}= -2V, I_C= -1A	60		400	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-2A, I_B= -0.2A			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	I_C=-2A, I_B= -0.2A			-1.5	V
Transition frequency	f_T	V_{CE}= -5V, I_C=-0.1A f =10MHz		80		MHz

CLASSIFICATION OF h_{FE}

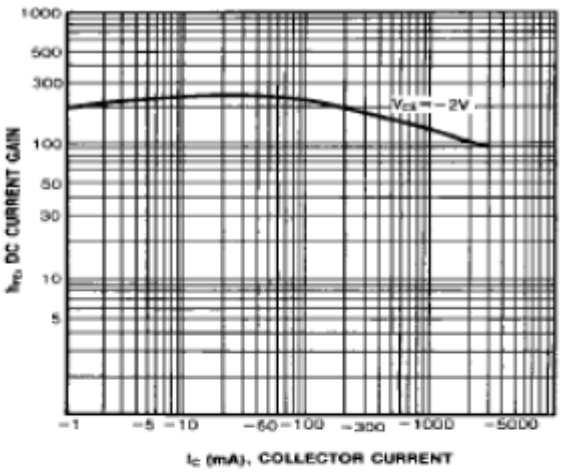
Rank	R	O	Y	GR
Range	60-120	100-200	160-320	200-400

Typical characteristics

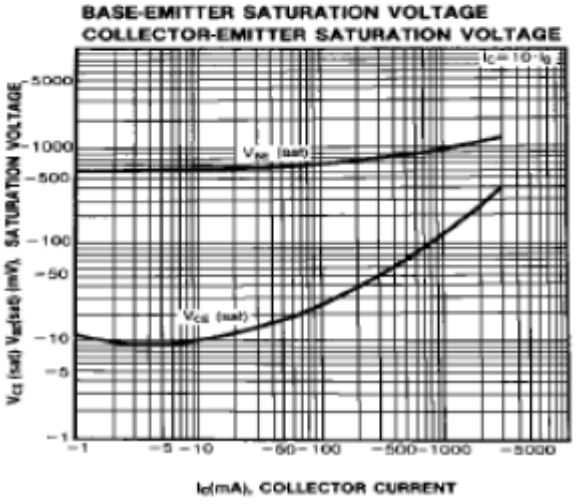
STATIC CHARACTERISTIC



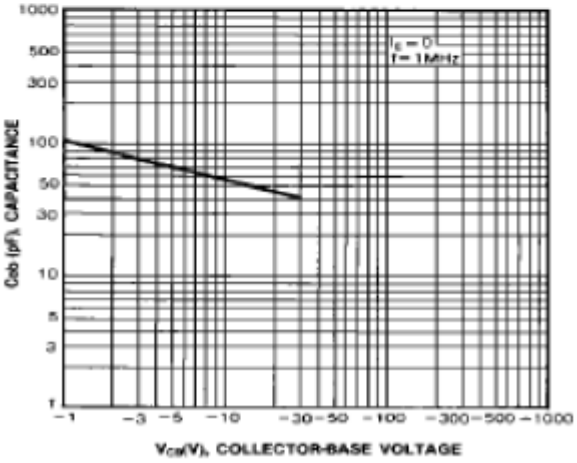
DC CURRENT GAIN



BASE-EMITTER SATURATION VOLTAGE
COLLECTOR-EMITTER SATURATION VOLTAGE



COLLECTOR OUTPUT CAPACITANCE



CURRENT GAIN-BANDWIDTH PRODUCT