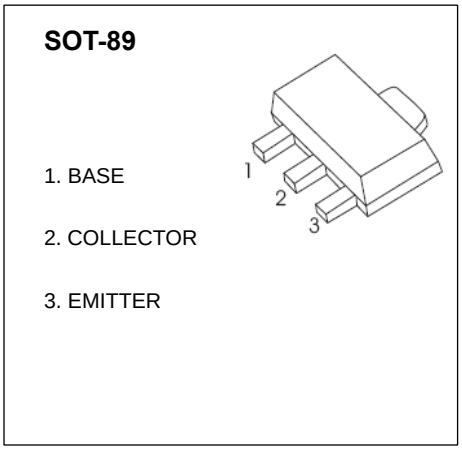
WILLAS

RoHS COMPLIANT

SOT-89 Plastic-Encapsulate Transistors

2SB1386

TRANSISTOR (PNP)



FEATURES

- Low collector saturation voltage
- Execllent current-to-gain characteristics
- **Pb-Free package is available**
  RoHS product for packing code suffix "G"
  Halogen free product for packing code suffix "H"

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-30	V
V_{CEO}	Collector-Emitter Voltage	-20	V
V_{EBO}	Emitter-Base Voltage	-6	V
I_C	Continuous Collector Current	-5	A
I_{CP}*	Pulsed Collector Current	-10	A
P_C	Collector Power Dissipation	0.5	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

*Single pulse,P_W=10ms

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-50μA,I_E=0	-30			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-1mA,I_B=0	-20			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-50μA,I_C=0	-6			V
Collector cut-off current	I_{CBO}	V_{CB}=-20V,I_E=0			-0.5	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.5	μA
DC current gain	h_{FE}	V_{CE}=-2V,I_C=-500mA	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-4A,I_B=-100mA			-1	V
Transition frequency	f_T	V_{CE}=-6V,I_C=-50mA,f=30MHz		120		MHz
Collector output capacitance	C_{ob}	V_{CB}=-20V,I_E=0,f=1MHz		60		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
Marking	BHP	BHQ	BHR

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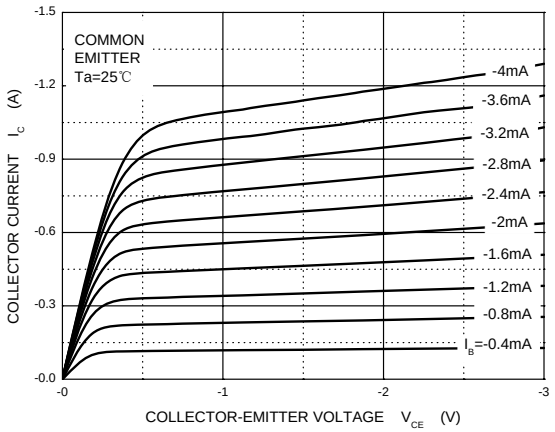
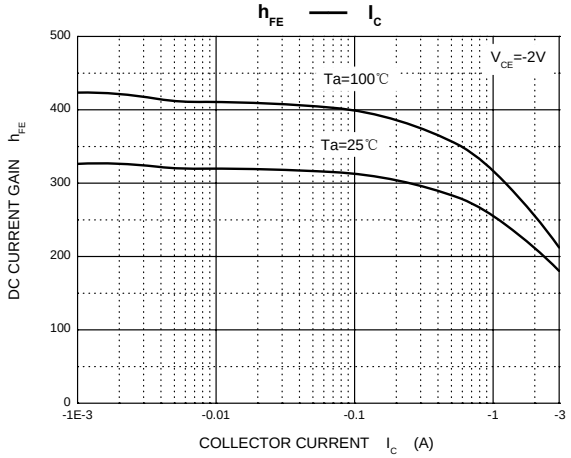
Typical Characterisitics

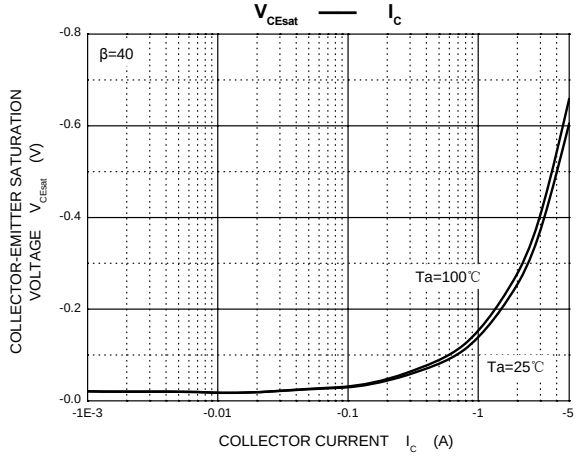
Static Characteristic



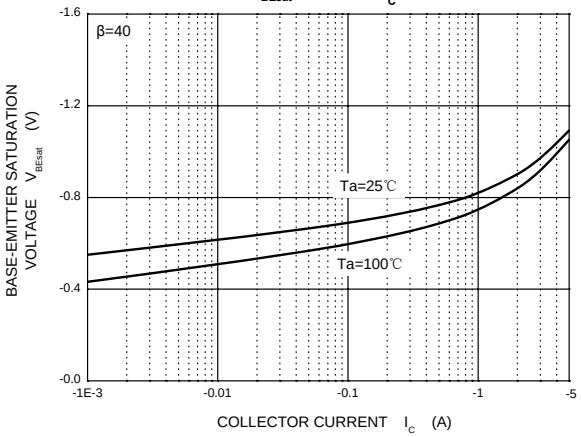
h_{FE} — I_C



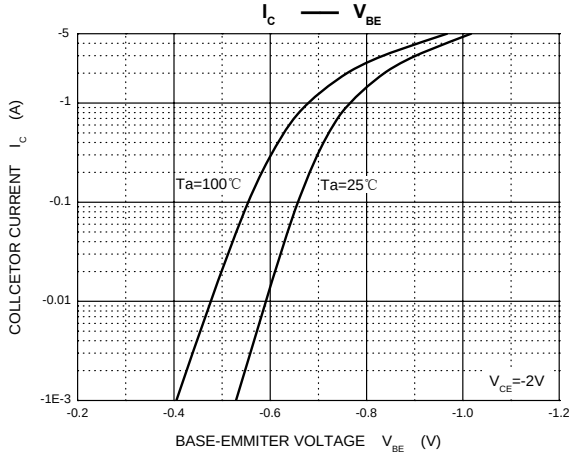
V_{CEsat} — I_C



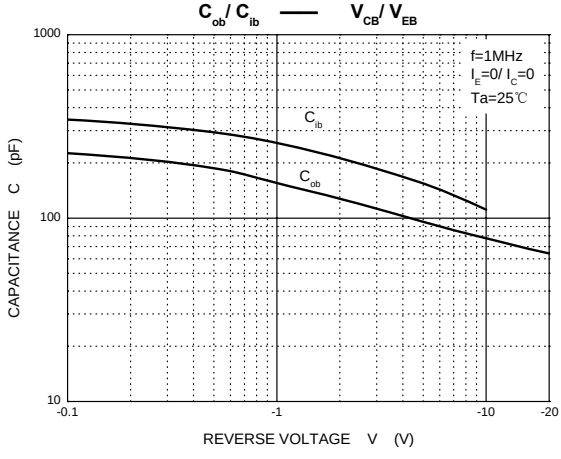
V_{BEsat} — I_C



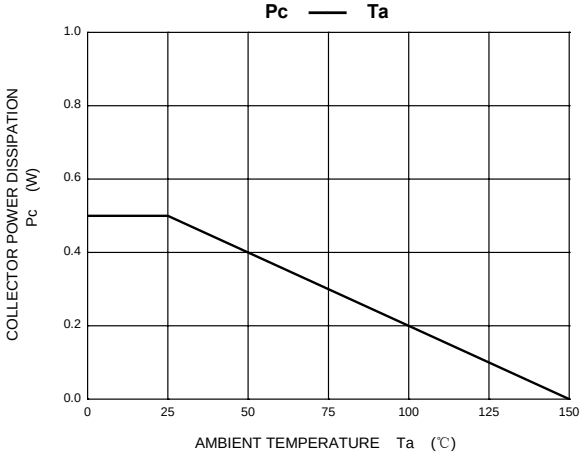
I_C — V_{BE}



C_{ob} / C_{ib} — V_{CB} / V_{EB}

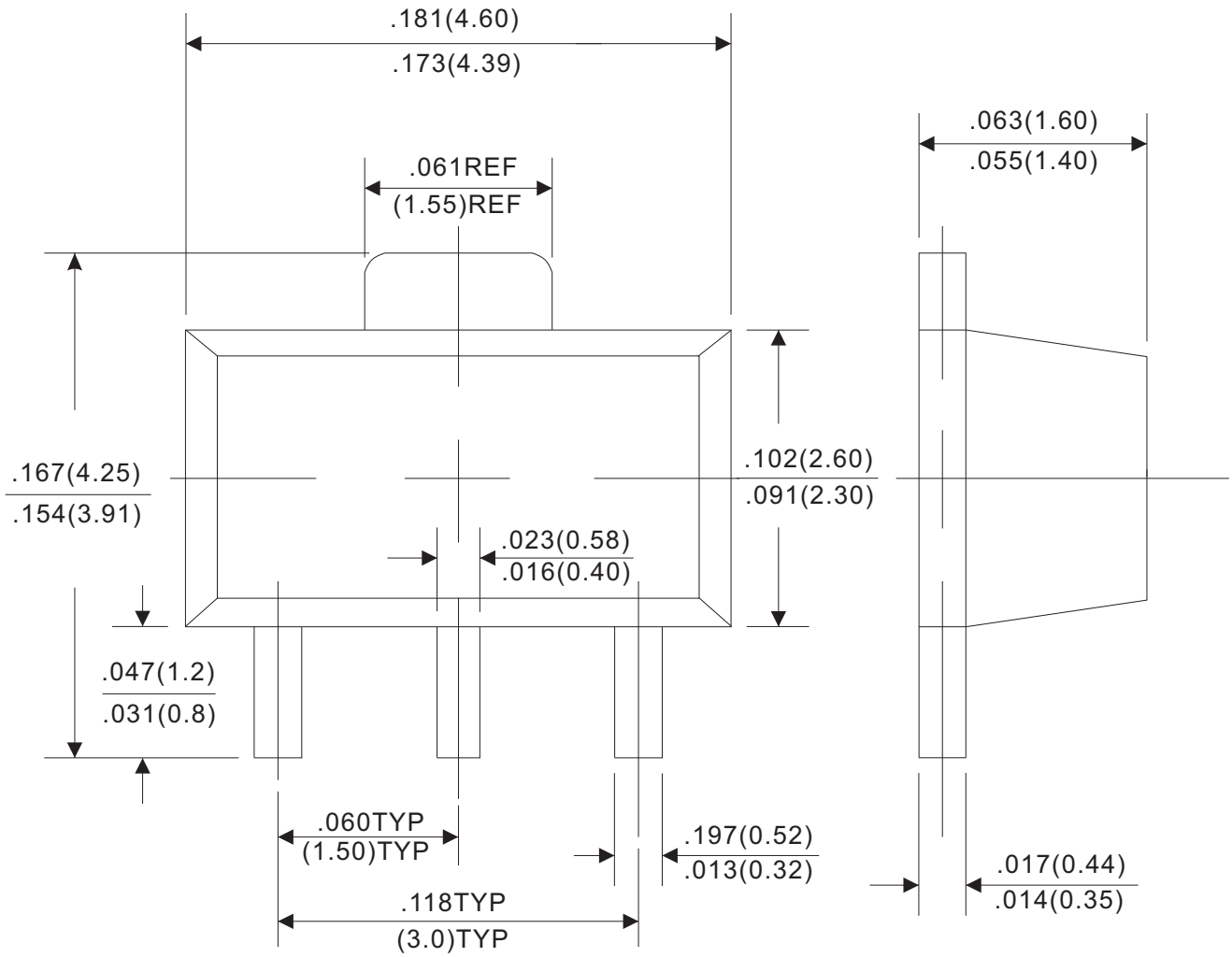


Pc — Ta



Outline Drawing

SOT-89



Dimensions in inches and (millimeters)

Rev.C