WILLAS

RoHS COMPLIANT

SOT-89 Plastic-Encapsulate Transistors

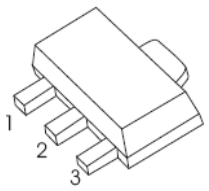
BCX53

TRANSISTOR (PNP)

FEATURES

- **Pb-Free package is available**
  RoHS product for packing code suffix "G"
  Halogen free product for packing code suffix "H"
- Low Voltage
- High Current

SOT-89



1. BASE
2. COLLECTOR
3. EMITTER

APPLICATIONS

- Medium Power General Purposes
- Driver Stages of Audio Amplifiers

MARKING:BCX53:AH, BCX53-10:AK, BCX53-16:AL

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	-100	V
V_{CEO}	Collector-Emitter Voltage	-80	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current	-1	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

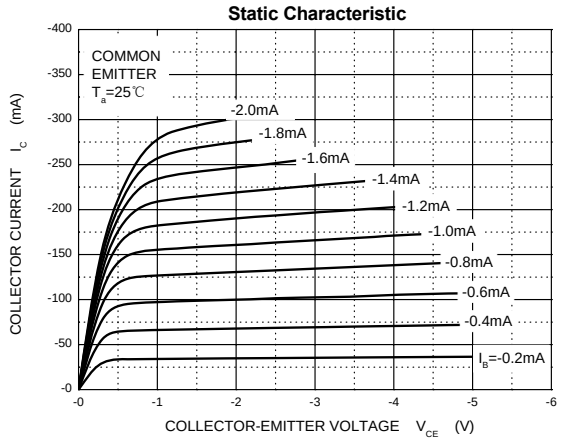
Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	I_C=-100μA,I_E=0	-100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$*	I_C=-10mA,I_B=0	-80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-100μA,I_C=0	-5			V
Collector cut-off current	I_{CBO}	V_{CB}=-30V,I_E=0			-0.1	μA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			-0.1	μA
DC current gain	$h_{FE(1)}$*	V_{CE}=-2V, I_C=-5mA	63			
	$h_{FE(2)}$*	V_{CE}=-2V, I_C=-150mA	63		250	
	$h_{FE(3)}$*	V_{CE}=-2V, I_C=-0.5A	40			
Collector-emitter saturation voltage	$V_{CE(sat)}$*	I_C=-0.5A,I_B=-50mA			-0.5	V
Base -emitter voltage	V_{BE}*	V_{CE}=-2V, I_C=-0.5A			-1	V
Transition frequency	f_T	V_{CE}=-5V,I_C=-10mA, f=100MHz		50		MHz

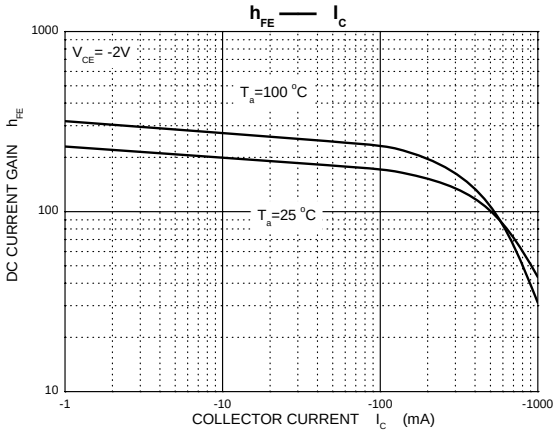
* Pulse Test

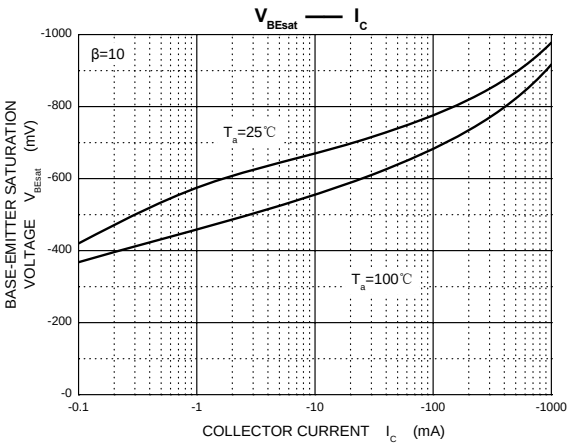
CLASSIFICATION OF $h_{FE(2)}$

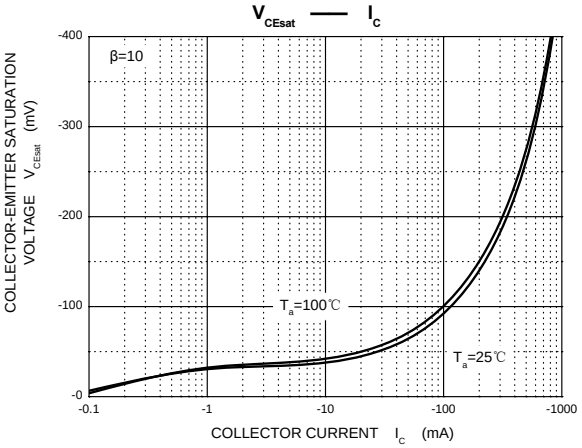
RANK	BCX53	BCX53-10	BCX53-16
RANGE	63–250	63–160	100–250

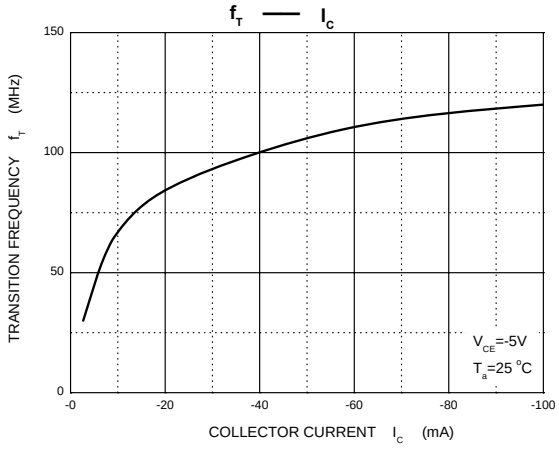
Typical Characteristics

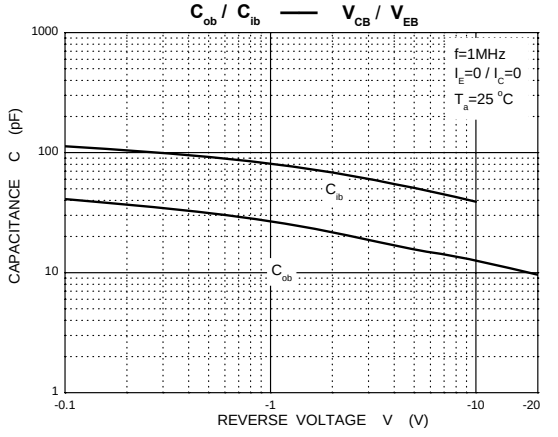


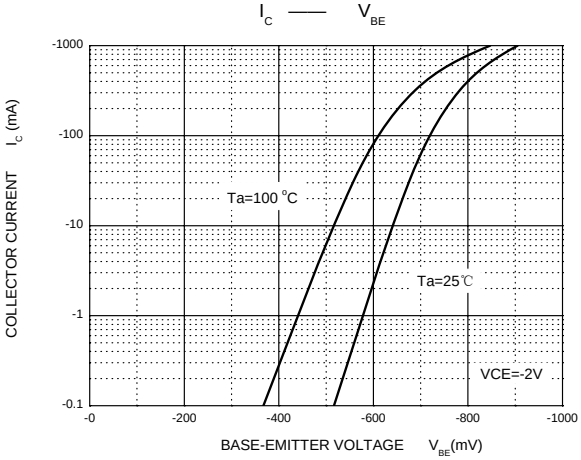


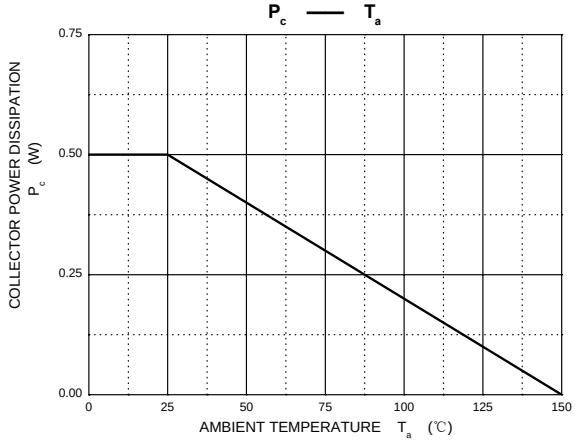






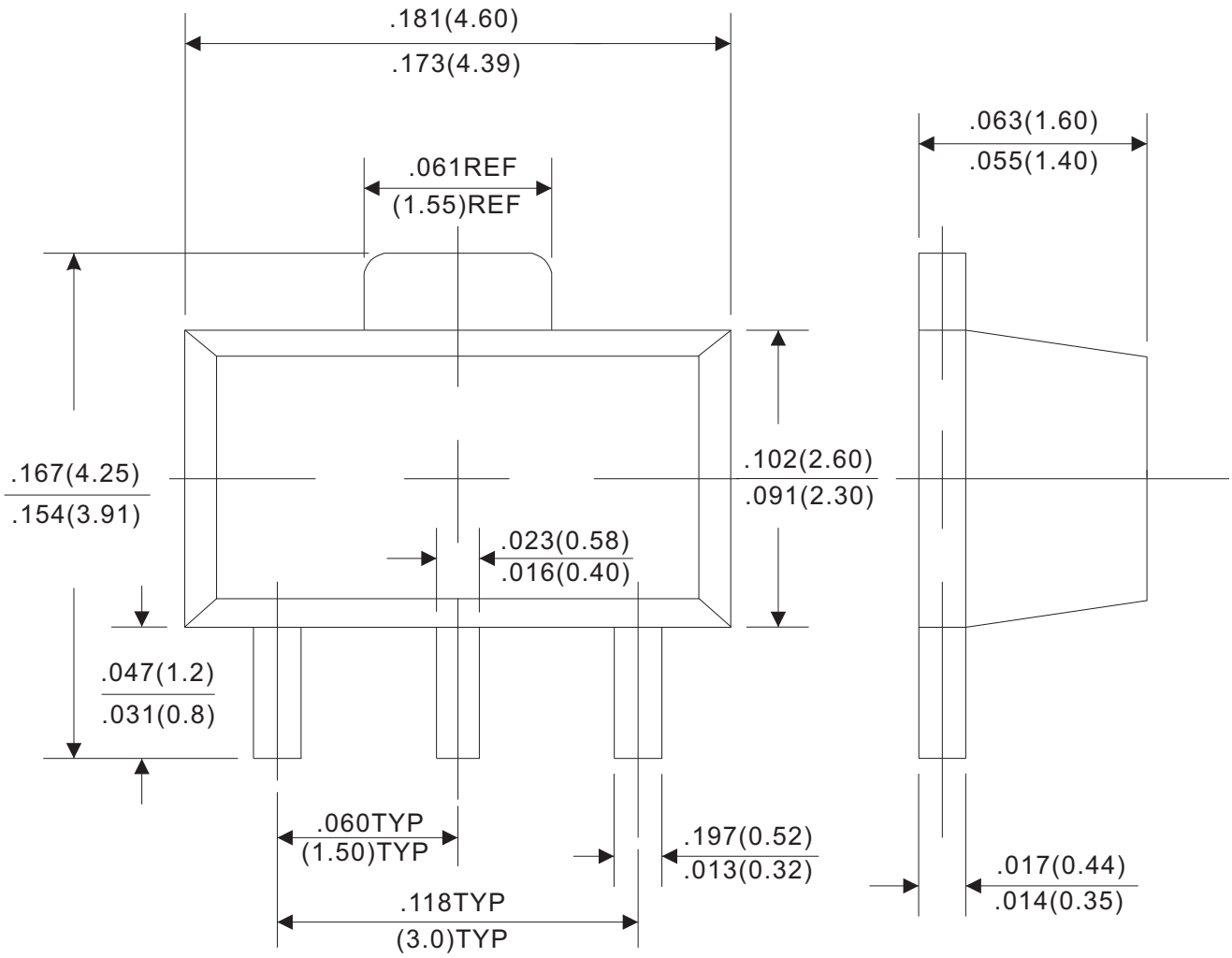






Outline Drawing

SOT-89



Dimensions in inches and (millimeters)

Rev.C