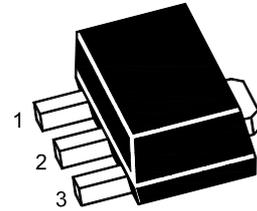


## Plastic-Encapsulate Transistors

TRANSISTOR (NPN)

### FEATURES

- High Breakdown Voltage and Current
- Excellent DC Current Gain Linearity
- Complement the 2SB1260U
- Low Collector-Emitter Saturation Voltage



1.Base 2.Collector 3.Emitter  
SOT-89 Plastic Package

### MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Value	Unit
$V_{CB0}$	Collector-Base Voltage	100	V
$V_{CE0}$	Collector-Emitter Voltage	80	V
$V_{EB0}$	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	$^\circ\text{C}/\text{W}$
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-55~+150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS ( $T_a=25^\circ\text{C}$ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu\text{A}, I_E=0$	100			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1\text{mA}, I_B=0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu\text{A}, I_C=0$	5			V
Collector cut-off current	$I_{CBO}$	$V_{CB}=80\text{V}, I_E=0$			1	$\mu\text{A}$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=4\text{V}, I_C=0$			1	$\mu\text{A}$
DC current gain	$h_{FE}$	$V_{CE}=3\text{V}, I_C=500\text{mA}$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=20\text{mA}$			0.4	V
Transition frequency	$f_T$	$V_{CE}=10\text{V}, I_C=50\text{mA}, f=100\text{MHz}$		100		MHz
Collector output capacitance	$C_{ob}$	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		20		pF

### CLASSIFICATION OF $h_{FE}$

RANK	P	Q	R
RANGE	82 - 180	120 - 270	180 - 390
MARKING	DF		

## Typical Characteristics

