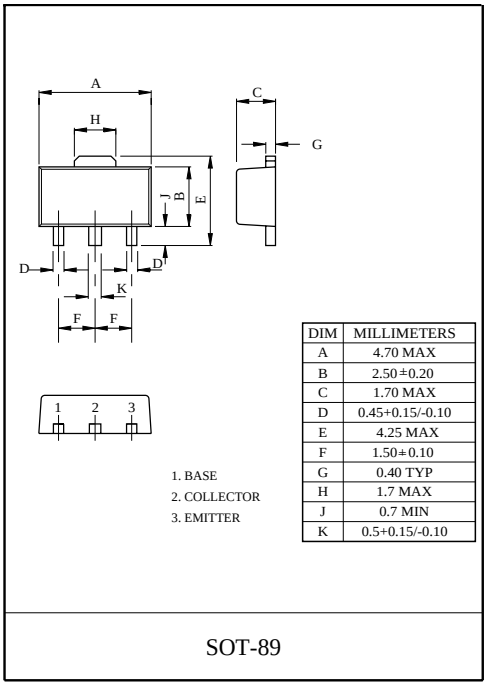
NPN Transistor



DIM	MILLIMETERS
A	4.70 MAX
B	2.50±0.20
C	1.70 MAX
D	0.45+0.15/-0.10
E	4.25 MAX
F	1.50±0.10
G	0.40 TYP
H	1.7 MAX
J	0.7 MIN
K	0.5+0.15/-0.10

SOT-89

FEATURES

- Small Flat Package
- High Current Application
- High Voltage
- High Transition Frequency

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current	0.8	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= -1mA,I_E=0	120			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	I_C=-10mA,I_B=0	120			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	I_E=-1mA,I_C=0	5			V
Collector cut-off current	I_{CBO}	V_{CB}=-120V,I_E=0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=-5V,I_C=0			100	nA
DC current gain	h_{FE}	V_{CE}=-5V, I_C=-100mA	80		240	
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C=-500mA,I_B=-50mA			1	V
Base-emitter voltage	V_{BE}	V_{CE}=-5V, I_C=-500mA			1	V
Collector output capacitance	C_{ob}	V_{CB}=-10V,I_E=0, f=1MHz			30	pF
Transition frequency	f_T	V_{CE}=-5V,I_C=-0.1A, f=30MHz		120		MHz

CLASSIFICATION OF h_{FE}

RANK	O	Y
RANGE	80 – 160	120 – 240
MARKING	CO	CY