

Features

- Switching and amplification in high voltage.
- Low current(max. 600mA)
- High voltage (max. 180V)

Applications

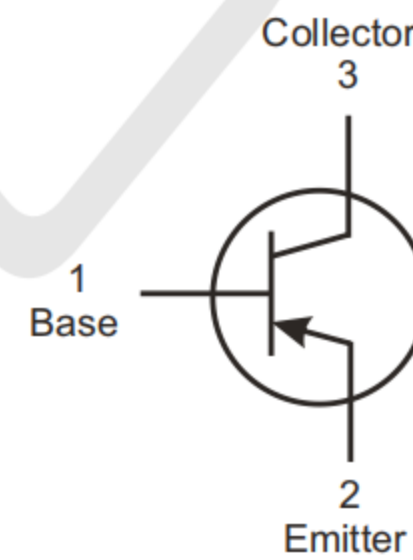
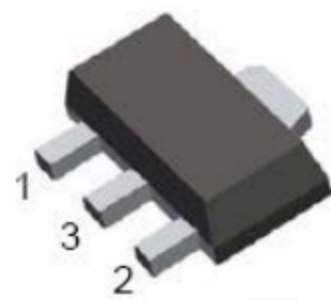
- High voltage amplifier application.

Ordering Information

- Shipping Qty:1000 /7inch Tape& Reel

Circuit Diagram

SOT-89



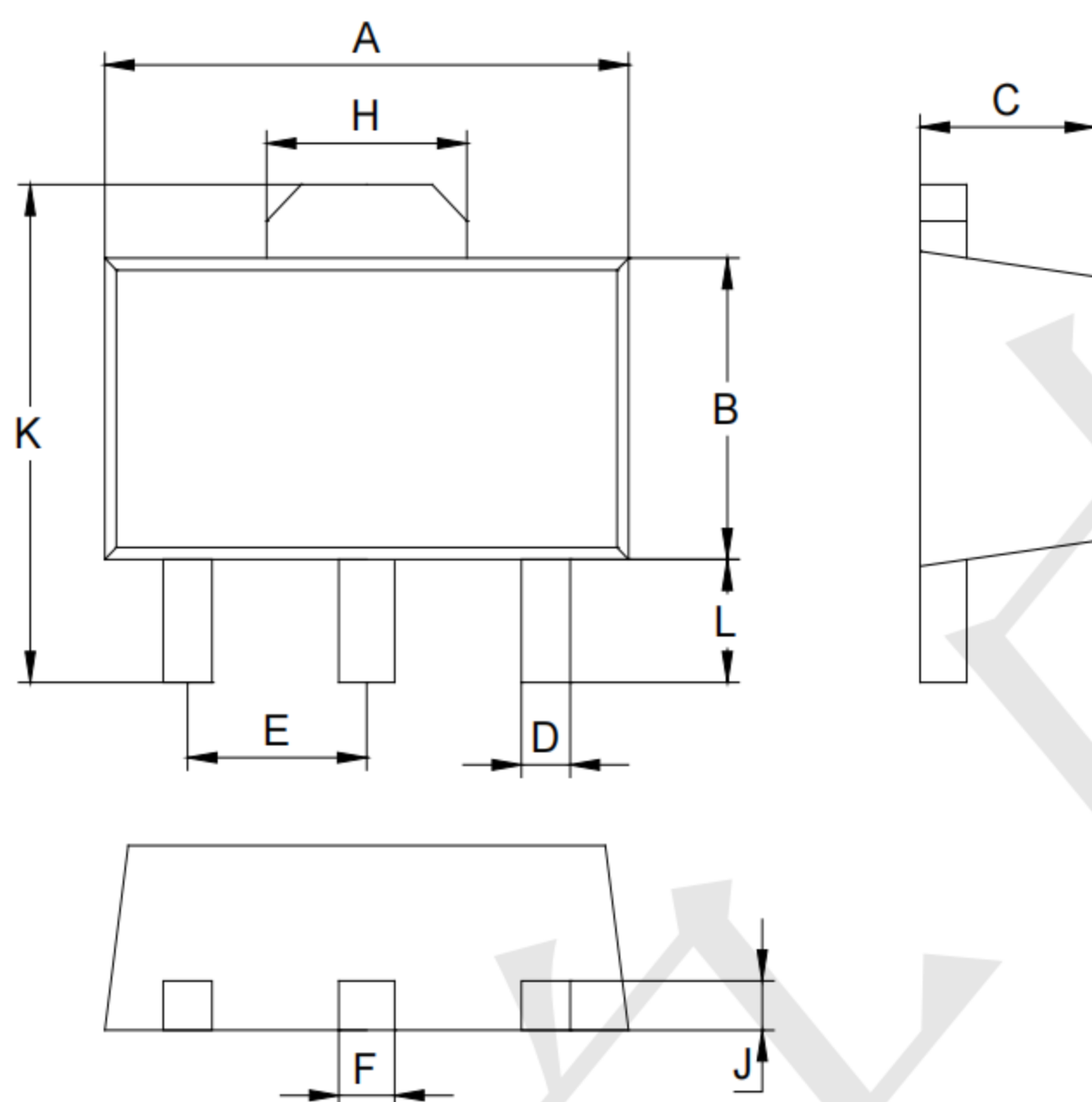
Absolute Maximum Ratings (Tamb=25°C unless otherwise specified)

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	-160	V
V_{CEO}	Collector-Emitter Voltage	-150	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_C	Collector Current -Continuous	-500	mA
P_D	Power Dissipation	0.5	W
$R_{\theta JA}$	Thermal resistance	250	°C/W
T_j, T_{stg}	Junction and Storage Temperature	-65 to +150	°C

Electrical Characteristics (TA=25°C unless otherwise specified)

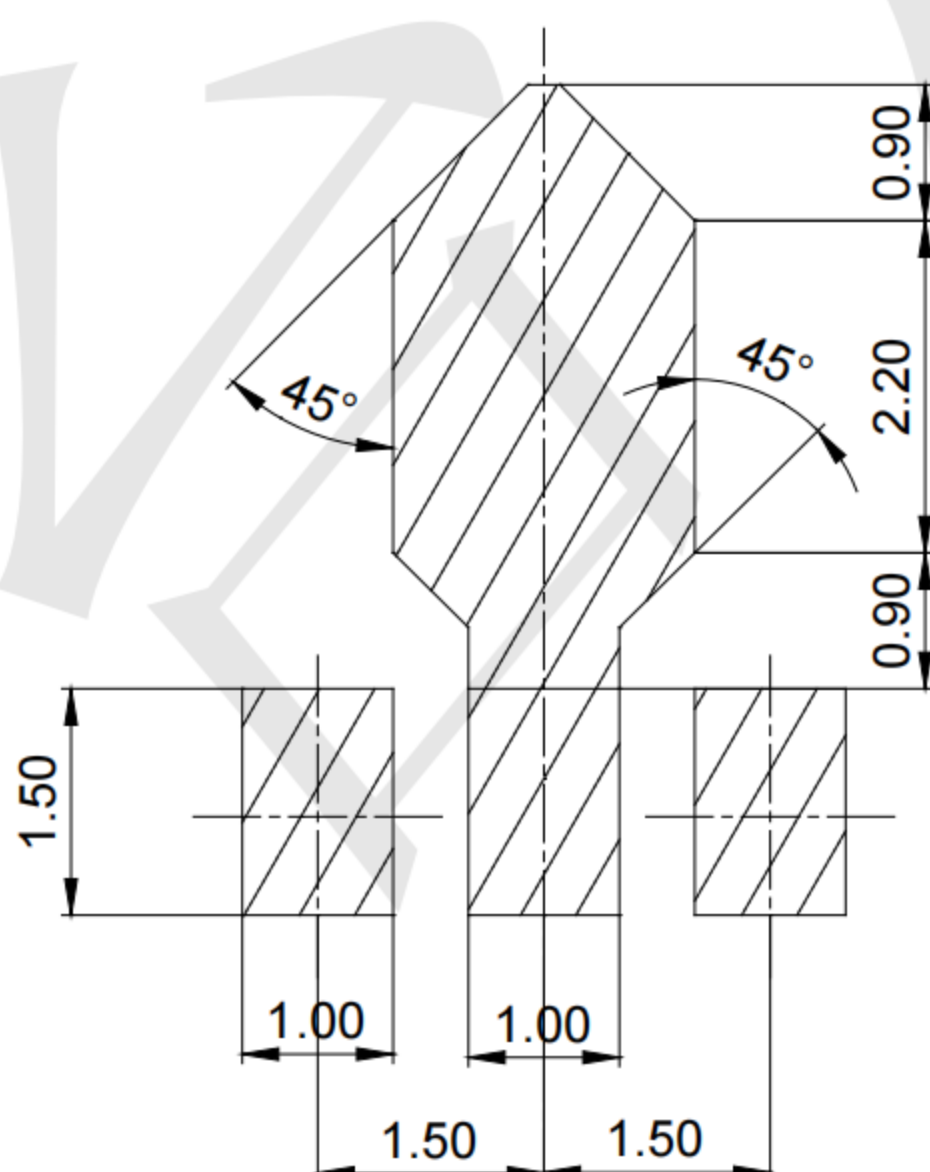
Parameter	Symbol	Test conditions	MIN	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160		V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1.0mA, I_B = 0$	-150		V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E = -10\mu A, I_C = 0$	-5		V
Collector cut-off current	I_{CBO}	$V_{CB} = -120V$		-50	nA
		$V_{CB} = -120V, T_A = 100^\circ C$		-50	μA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$		-50	nA
DC current gain	h_{FE}	$V_{CE} = -5V; I_C = -1mA$	50		
		$V_{CE} = -5V; I_C = -10mA$	100	300	
		$V_{CE} = -5V; I_C = -50mA$	50		
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$		-0.2	V
		$I_C = -50mA, I_B = -5mA$		-0.5	
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10mA, I_B = -1mA$		-1.0	V
		$I_C = -50mA, I_B = -5mA$		-1.0	
Transition frequency	f_T	$V_{CE} = -10V, I_C = -10mA, f = 100MHz$	100	300	MHz
Collector output capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$		6.0	pF
Small-signal current gain	h_{fe}	$I_C = -1mA, V_{CE} = -10V, f = 1.0kHz$	40	200	
Noise Figure	NF	$I_C = -200\mu A, V_{CE} = -5V, f = 10-15.7kHz, R_S = 10\Omega$		8	dB

Outline Drawing - SOT-89



SOT-89		
Dim	Min	Max
A	4.30	4.70
B	2.25	2.65
C	1.30	1.70
D	0.30	0.50
E	1.40	1.60
F	0.38	0.58
H	1.60	1.80
J	0.30	0.50
L	0.90	1.10
K	3.95	4.35
All Dimensions in mm		

Land Pattern - SOT-89



Unit: mm