

RoHS Compliant Product

FEATURES

Power dissipation

P_{CM} : 500mW ($T_{amb}=25^{\circ}C$)

Collector current

I_{CM} : -1 A

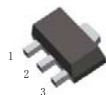
Collector-base voltage

$V_{B(BR)CBO}$: -30 V

Operating and storage junction temperature range

T_J, T_{stg} : $-55^{\circ}C$ to $+150^{\circ}C$

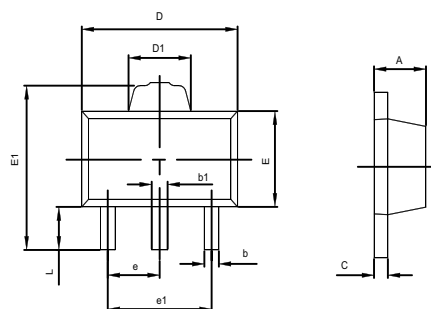
SOT-89



1.BASE

2.COLLECTOR

3.EMITTER



Symbol	Dimensions in Millimeters		Dimensions in Inches	
	Min	Max	Min	Max
A	1.400	1.600	0.055	0.063
b	0.320	0.520	0.013	0.020
b1	0.360	0.560	0.014	0.022
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.400	1.800	0.055	0.071
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500TYP		0.060TYP	
e1	2.900	3.100	0.114	0.122
L	0.900	1.100	0.035	0.043

ELECTRICAL CHARACTERISTICS ($T_{amb}=25^{\circ}C$ unless otherwise specified)

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{B(BR)CBO}$	$I_C=-10\mu A, I_E=0$	-30			V
Collector-emitter breakdown voltage	$V_{B(BR)CEO}$	$I_C=-2mA, I_B=0$	-25			V
Emitter-base breakdown voltage	$V_{B(BR)EBO}$	$I_E=-10\mu A, I_C=0$	-5			V
Collector cut-off current	I_{CBO}	$V_{CB}=-20V, I_E=0$			-0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=-4V, I_C=0$			-0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=-10V, I_C=-500mA$	85		340	
	$h_{FE(2)}$	$V_{CE}=-5V, I_C=-1A$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=-500mA, I_B=-50mA$		-0.2	-0.4	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C=-500mA, I_B=-50mA$		-0.85	-1.2	V
Transition frequency	f_T	$V_{CE}=-10V, I_C=-50mA, f=200MHz$		200		MHz
Collector output capacitance	C_{ob}	$V_{CB}=-10V, I_E=0, f=1MHz$		20	30	pF

CLASSIFICATION OF $h_{FE(1)}$

Rank	Q	R	S
Range	85-170	120-240	170-340
Marking	AQ	AR	AS

