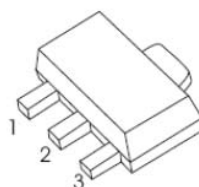


TRANSISTOR (NPN)

FEATURES

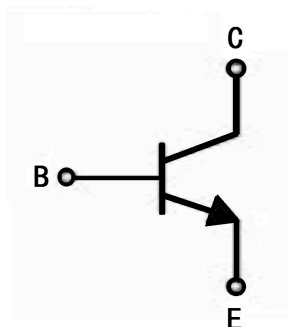
- Compliment to PXT3906
- Low current
- Low voltage

SOT-89-3L



1. BASE
2. COLLECTOR
3. EMITTER

CIRCUIT DIAGRAM



MARKING: 1A

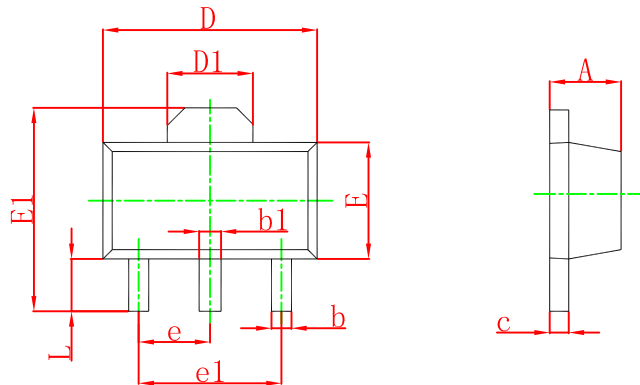
MAXIMUM RATINGS (Ta=25°C unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	40	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current	200	mA
P_C	Collector Power Dissipation	500	mW
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55~150	°C

ELECTRICAL CHARACTERISTICS (Ta=25°C unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=10\mu A, I_E=0$	60			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	40			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	6			V
Collector cut-off current	I_{CBO}	$V_{CB}=30V, I_E=0$			0.05	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=6V, I_C=0$			0.05	μA
Collector cut-off current	I_{CEX}	$V_{CE}=30V, V_{BE(off)}=3V$			0.05	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=1V, I_C=0.1mA$	60			
	$h_{FE(2)}$	$V_{CE}=1V, I_C=1mA$	80			
	$h_{FE(3)}$	$V_{CE}=1V, I_C=10mA$	100		300	
	$h_{FE(4)}$	$V_{CE}=1V, I_C=50mA$	60			
	$h_{FE(5)}$	$V_{CE}=1V, I_C=100mA$	30			
Collector-emitter saturation voltage	$V_{CE(sat)1}$	$I_C=10mA, I_B=1mA$			0.2	V
	$V_{CE(sat)2}$	$I_C=50mA, I_B=5mA$			0.3	V
Base-emitter saturation voltage	$V_{BE(sat)1}$	$I_C=10mA, I_B=1mA$	0.65		0.85	V
	$V_{BE(sat)2}$	$I_C=50mA, I_B=5mA$			0.95	V
Transition frequency	f_T	$V_{CE}=20V, I_C=10mA, f=100MHz$	300			MHz
Collector capacitance	C_c	$V_{CB}=5V, I_E=0, f=1MHz$			4	pF
Emitter capacitance	C_e	$V_{EB}=0.5V, I_C=0, f=1MHz$			8	pF
Noise figure	NF	$V_{CE}=5V, I_C=0.1mA,$ $f=10Hz-15.7kHz, R_S=1K\Omega$			5	dB
Delay time	t_d	$I_C=10mA, I_{B1}=-I_{B2}=1mA$			35	ns
Rise time	t_r				35	ns
Storage time	t_s				200	ns
Fall time	t_f				50	ns

SOT-89-3L PACKAGE OUTLINE DRAWING



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	0.400	0.580	0.016	0.023
c	0.350	0.440	0.014	0.017
D	4.400	4.600	0.173	0.181
D1	1.550 REF.		0.061 REF.	
E	2.300	2.600	0.091	0.102
E1	3.940	4.250	0.155	0.167
e	1.500 TYP.		0.060 TYP.	
e1	3.000 TYP.		0.118 TYP.	
L	0.900	1.200	0.035	0.047