TL-A42

SOT-89-3L Plastic-Encapsulate Transistors (NPN)

Features

- Low Collector-Emitter Saturation Voltage
- High Breakdown Voltage

SOT-89-3L

Absolute Maximum Ratings(T_A=25℃)

Symbol	Parameter	Value	Uniat
V_{CBO}	Collector-Base Voltage	310	V
V_{CEO}	Collector-Emitter Voltage	305	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.2	A
I_{CM}	Collector Current -Pulsed	0.5	A
P_C	Collector Power Dissipation	500	mW
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J,T_{stg}	Operation Junction And Storage Temperature Range	-55～+150	℃

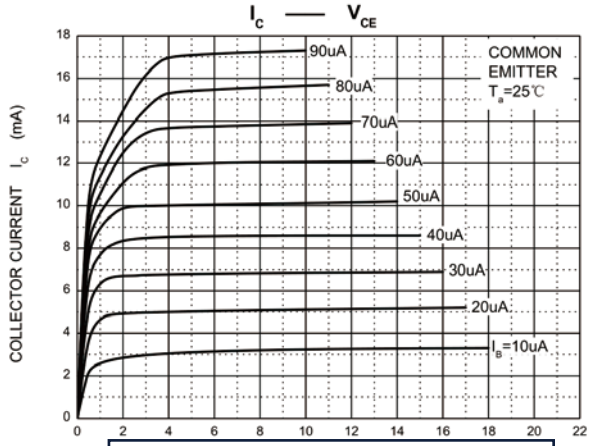
Electrical Characteristics (T_A=25℃ unless otherwise specified)

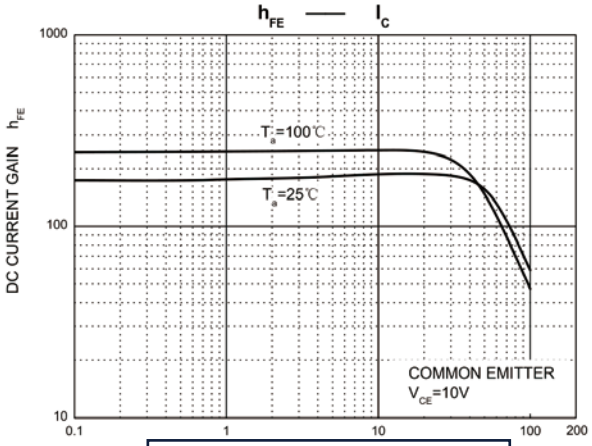
Symbol	Parameter	Test conditions	Min	Typ	Max	Unit
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=100μA, I_E=0	310			V
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	I_C=1mA, I_B=0	305			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E=100μA, I_C=0	5			V
I_{CBO}	Collector cut-off current	V_{CB}=200V, I_E=0			0.25	μA
I_{CEX}		V_{CE}=100V,V_X=5V			5	μA
		V_{CE}=300V,V_X=5V			10	μA
I_{EBO}	Emitter cut-off current	V_{EB}=5V, I_C=0			0.1	μA
$h_{FE(1)}$	DC current gain	V_{CE}=10V, I_C=1mA	60			
$h_{FE(2)}$		V_{CE}=10V, I_C=10mA	100		300	
$h_{FE(3)}$		V_{CE}=10V, I_C=30mA	75			
$V_{CE(sat)}$	Collector-emitter saturation voltage	I_C=20mA,I_B=2mA			0.2	V
$V_{BE(sat)}$	Base-emitter saturation voltage	I_C=20mA,I_B=2mA			0.9	V
f_T	Transition frequency	V_{CE}=20V,I_C=10mA, f=30MHz	50			MHz

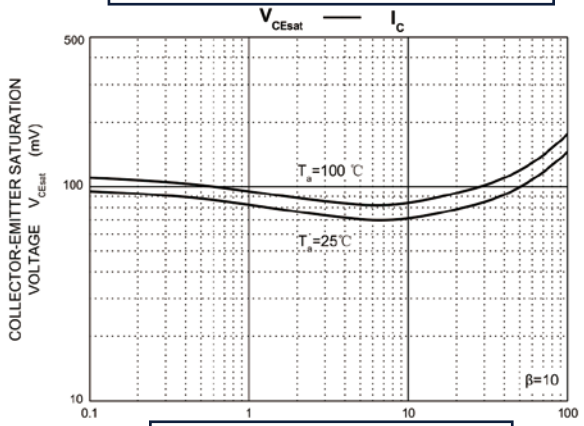
Ordering information

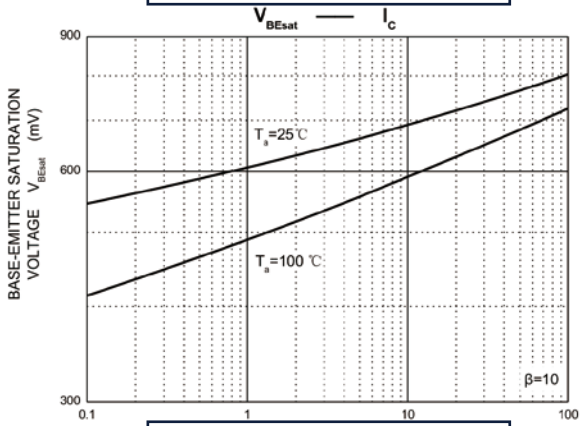
Product ID	Pack	Naming rule	Marking	hFE(1)	Qty(PCS)
A42	SOT-89-3L	A42 产品名称 product name	A42	100-300	1000

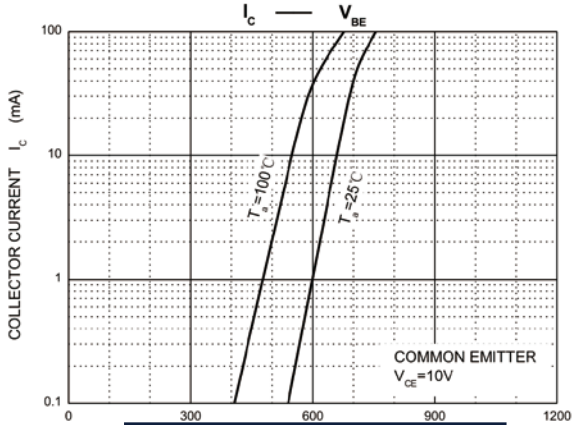
Typical Characteristics

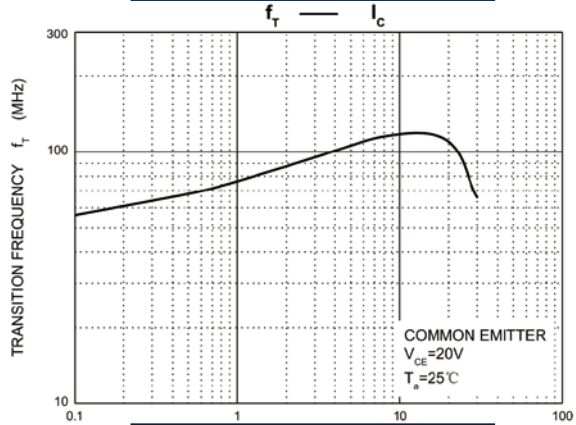


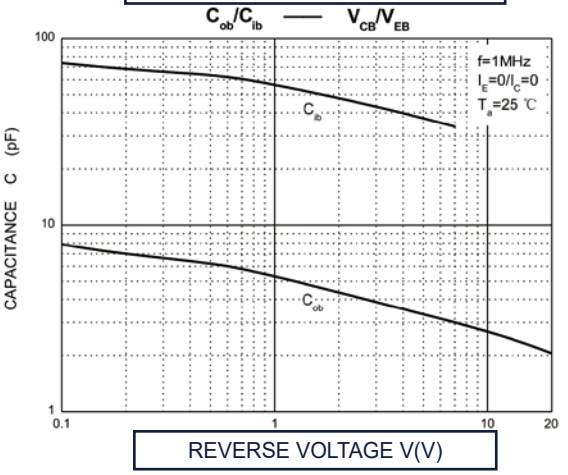


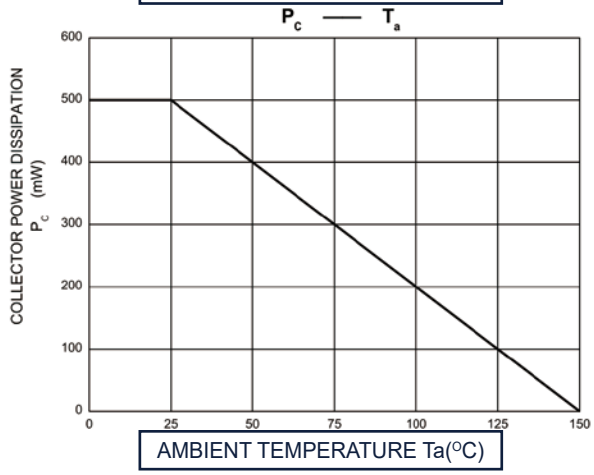




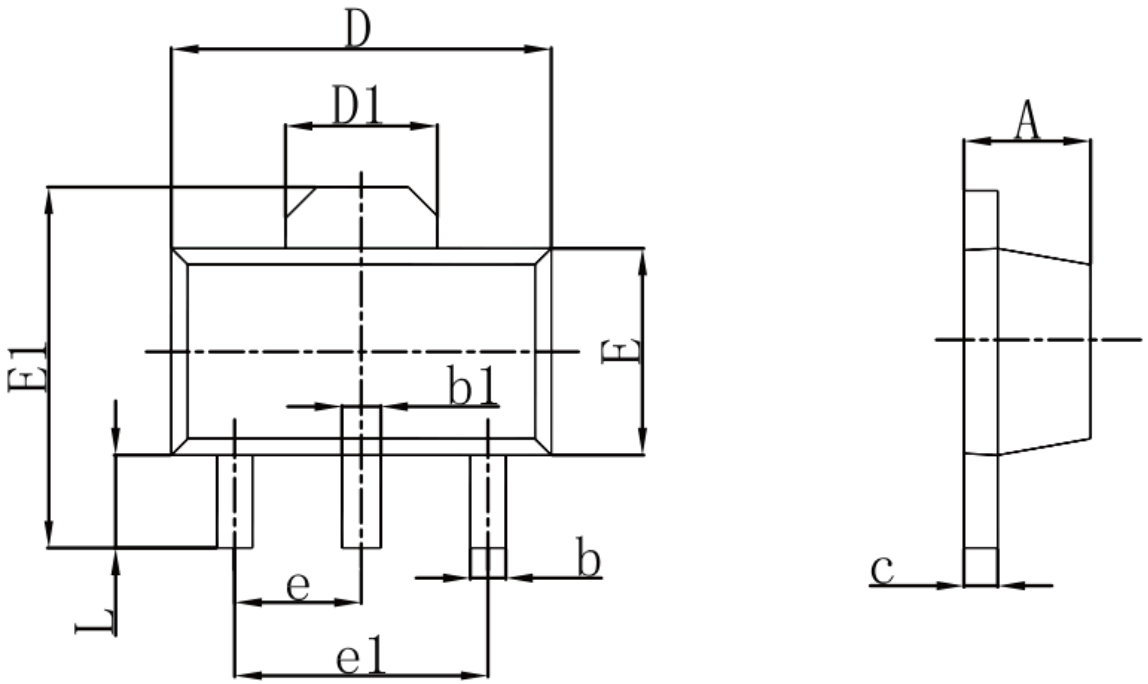








SOT-89-3L Package Outline Dimensions



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