

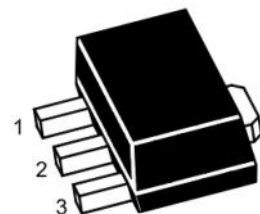


迈拓电子
MAITUO ELECTRONIC

2SD669 / 2SD669A TRANSISTOR (NPN)

FEATURES

- Low Frequency Power Amplifier Complementary
- Pair with 2SB649 / 2SB649A



1.Base 2.Collector 3.Emitter

SOT-89-3L

MARKING : D669,D669A

MAXIMUM RATINGS ($T_a=25^{\circ}\text{C}$ unless otherwise noted)

Symbol	Parameter		Value	Unit
V_{CBO}	Collector- Base Voltage		180	V
V_{CEO}	Collector-Emitter Voltage	2SD669	120	V
		2SD669A	160	
V_{EBO}	Emitter-Base Voltage		5	V
I_C	Collector Current -Continuous		1.5	A
P_C	Collector Dissipation		1	W
T_J, T_{stg}	Operation Junction and Storage Temperature Range		-55-150	$^{\circ}\text{C}$



$T_a=25^{\circ}\text{C}$ unless otherwise specified

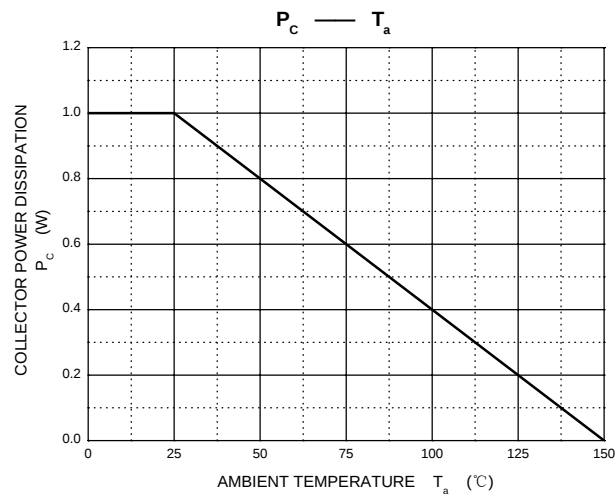
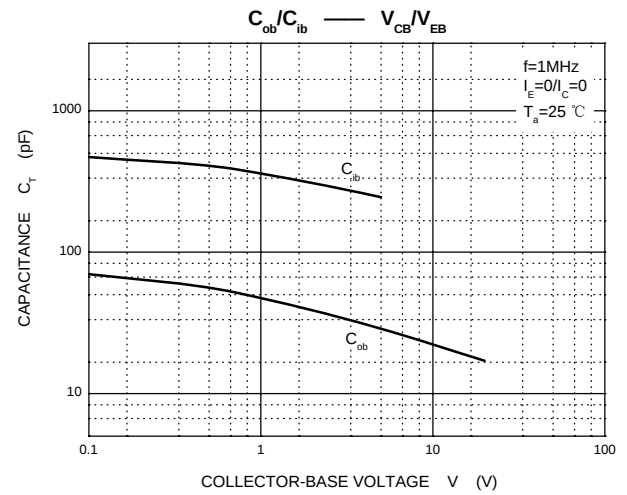
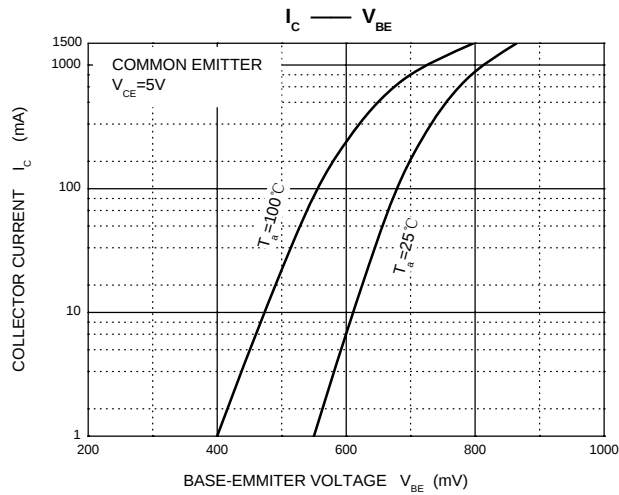
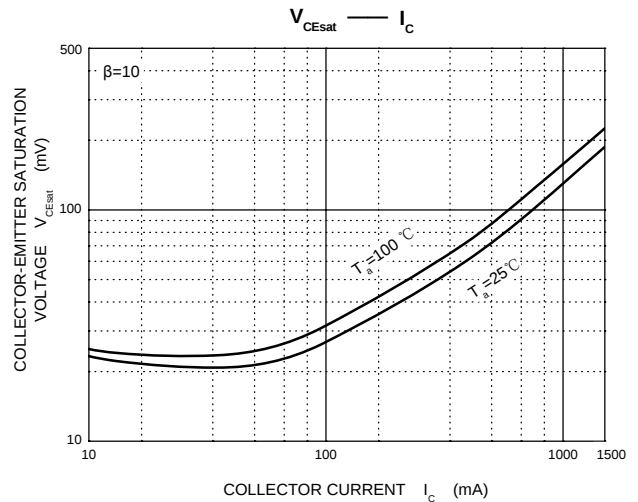
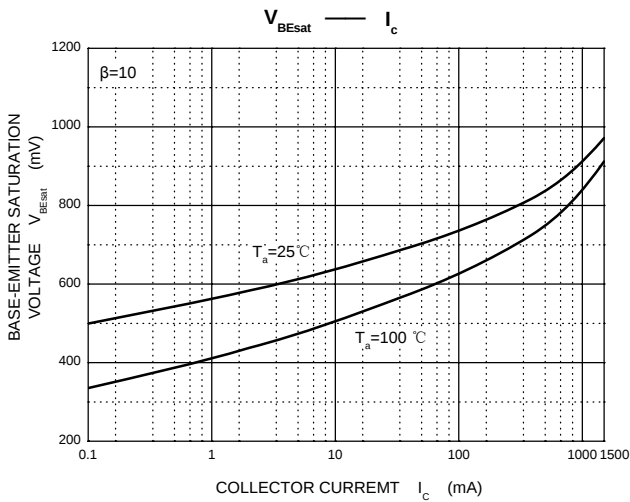
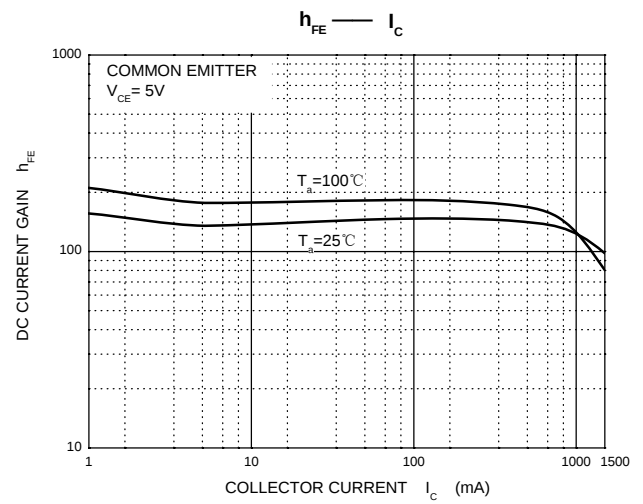
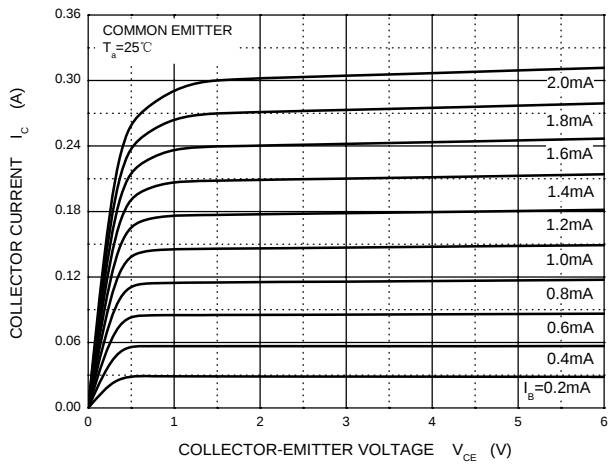
Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=1\text{mA}, I_E=0$		180			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$	2SD669	120			V
			2SD669A	160			
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=1\text{mA}, I_C=0$		5			V
Collector cut-off current	I_{CBO}	$V_{CB}=160\text{V}, I_E=0$				10	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4\text{V}, I_C=0$				10	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=5\text{V}, I_C=150\text{mA}$	2SD669	60		320	
			2SD669A	60		200	
	$h_{FE(2)}$	$V_{CE}=5\text{V}, I_C=500\text{mA}$		30			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$				1	V
Base-emitter voltage	V_{BE}	$V_{CE}=5\text{V}, I_C=150\text{mA}$				1.5	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=150\text{mA}$			140		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$			14		pF

CLASSIFICATION OF $h_{FE(1)}$

Rank		B	C	D
Range	2SD669	60-120	100-200	160-320
	2SD669A	60-120	100-200	

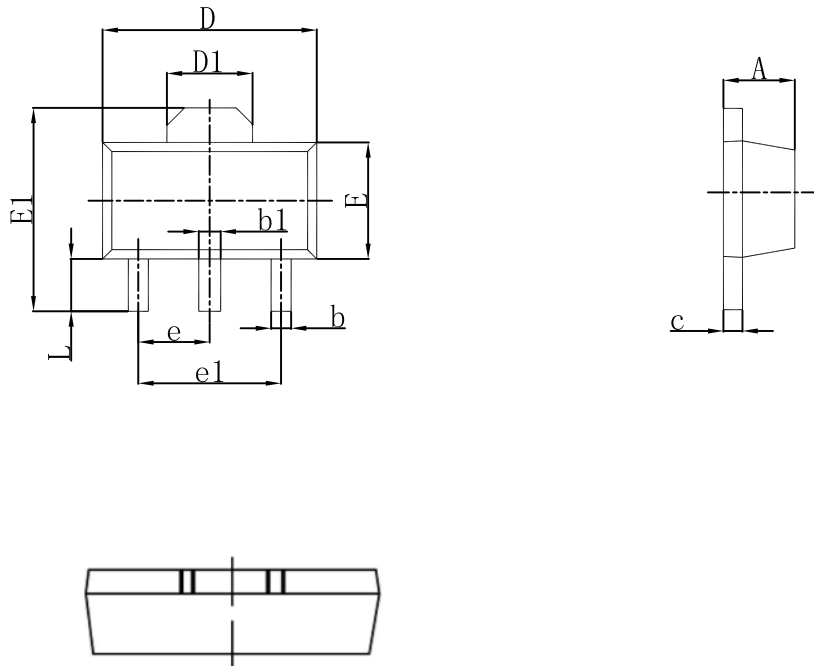


Static Characteristic





SOT-89-3L Outlines 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