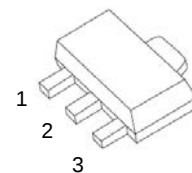




MT5401 TRANSISTOR (PNP)

FEATURE

- Switching and amplification in high voltage
Applications such as telephony
- Low current(max. 500mA)
- High voltage(max.160v)



1. BASE
2. COLLECTOR
3. EMITTER

MARKING: 5401

SOT-89-3L

MAXIMUM RATINGS (Ta=25℃ unless otherwise noted)

Symbol	Parameter	Value	Unit
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	-0.5	A
P_C	Collector Power Dissipation	0.5	W
$R_{\theta JA}$	Thermal Resistance From Junction To Ambient	250	℃/W
T_J, T_{stg}	Operation Junction and Storage Temperature Range	-55~150	℃

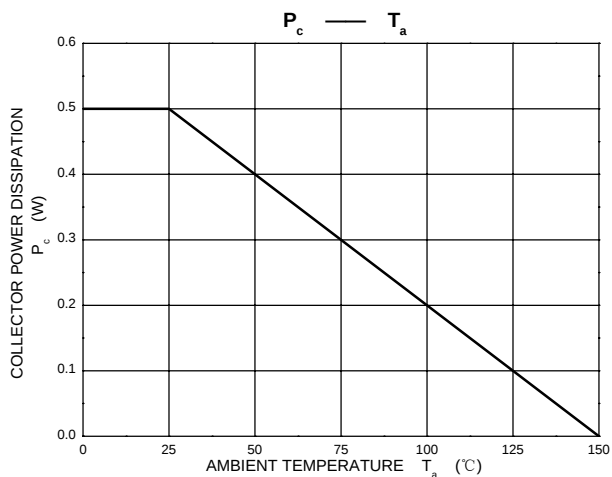
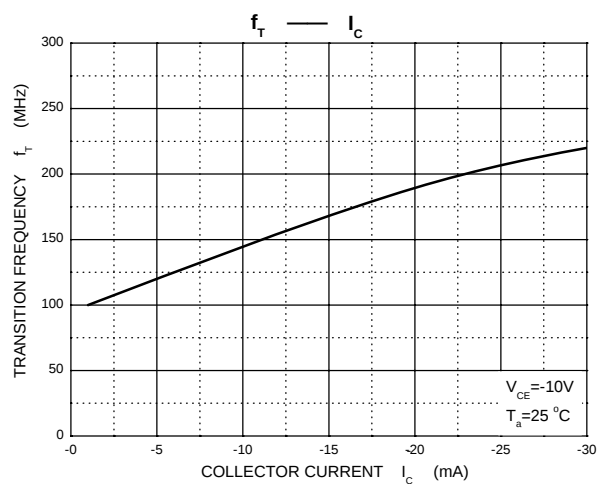
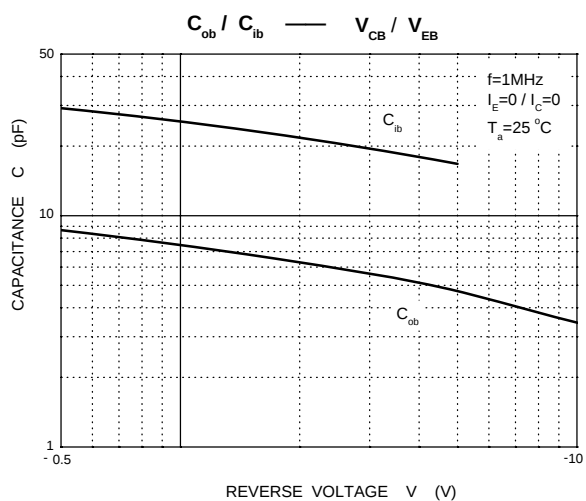
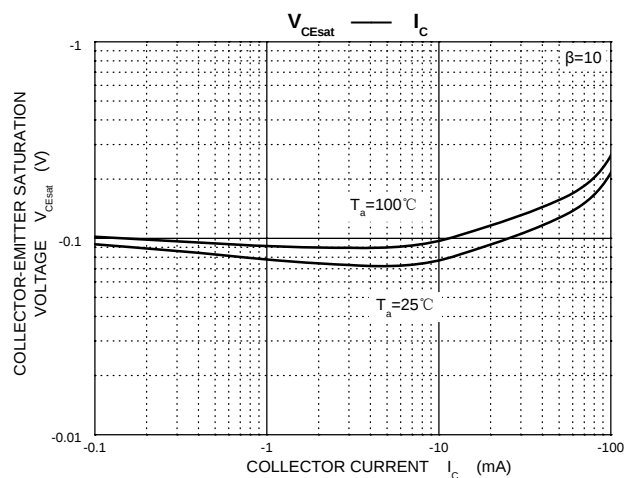
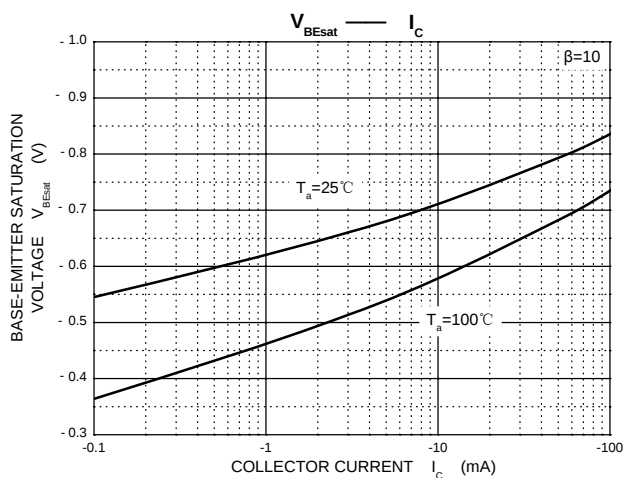
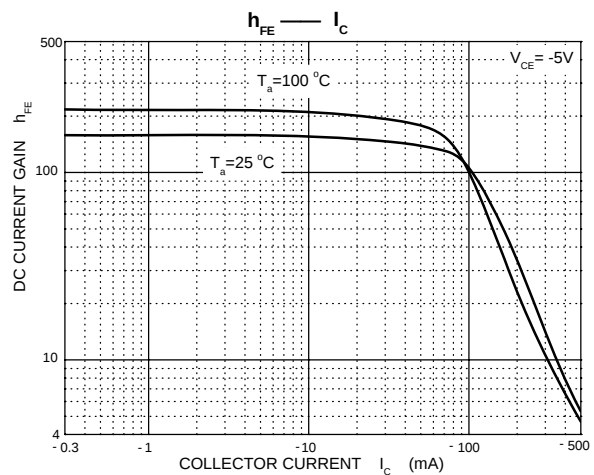
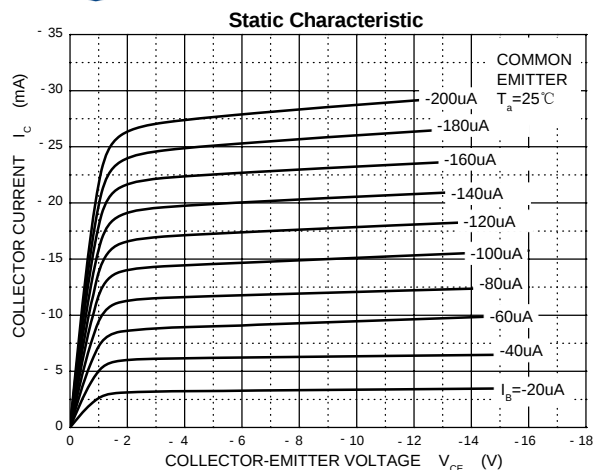
ELECTRICAL CHARACTERISTICS(Ta=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C = -100\mu A, I_E = 0$	-160			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = -1mA, I_B = 0$	-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}	$V_{CB} = -120V, I_E = 0$			-50	nA
Emitter cut-off current	I_{EBO}	$V_{EB} = -3V, I_C = 0$			-50	nA
DC current gain	$h_{FE(1)}$	$V_{CE} = -5V, I_C = -1mA$	50			
	$h_{FE(2)}$	$V_{CE} = -5V, I_C = -10mA$	100		300	
	$h_{FE(3)}$	$V_{CE} = -5V, I_C = -50mA$	50			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -10mA, I_B = -1mA$			-0.2	V
	$V_{CE(sat)}$	$I_C = -50mA, I_B = -5mA$			-0.5	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -10mA, I_B = -1mA$			-1	V
	$V_{BE(sat)}$	$I_C = -50mA, I_B = -5mA$			-1	V
Transition frequency	f_T	$V_{CE} = -10V, I_C = -10mA, f = 100MHz$	100		300	MHz
Output Capacitance	C_{ob}	$V_{CB} = -10V, I_E = 0, f = 1MHz$			6	pF
Noise Figure	NF	$V_{CE} = -5.0V, I_C = -200\mu A, R_S = 10\Omega, f = 10Hz \text{ to } 15.7kHz$			8	dB



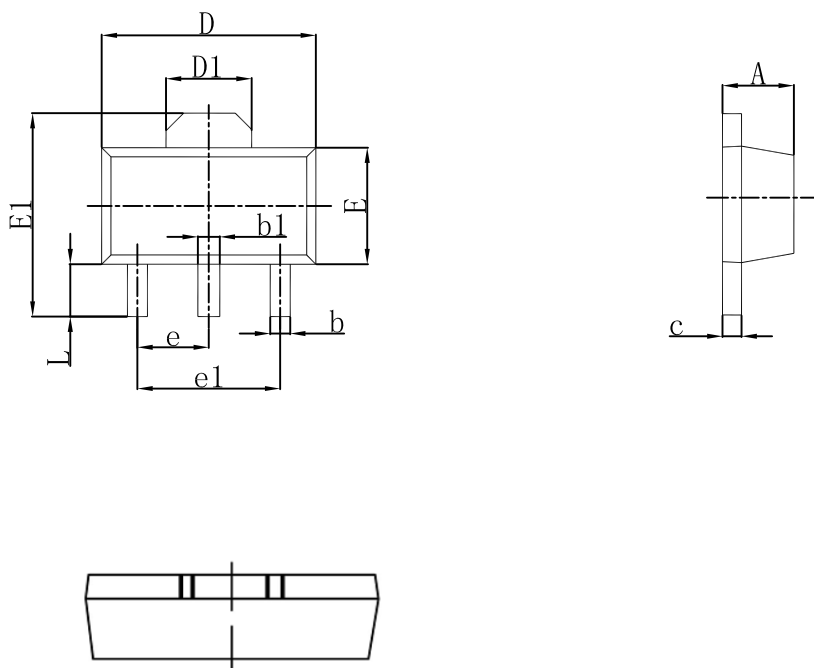
迈拓电子

MAITUO ELECTRONIC





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