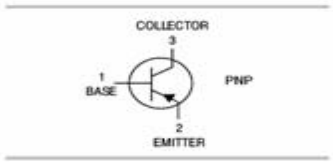
PNP General Purpose Transistor 2SA1774

FEATURES

- Excellent h_{FE} linearity.
- Complementary NPN type available (2SC4617).

Lead-free



SOT-523

APPLICATIONS

- Epitaxial planar type.
- PNP silicon transistor.

ORDERING INFORMATION

Type No.	Marking	Package Code
2SA1774	FQ/FR/FS	SOT-523

MAXIMUM RATING @ Ta=25℃ unless otherwise specified

Symbol	Parameter	Limits	Unit
V_{CBO}	collector-base voltage	-60	V
V_{CEO}	collector-emitter voltage	-50	V
V_{EBO}	emitter-base voltage	-6	V
I_C	collector current	-150	mA
P_d	Power dissipation	150	mW
$R_{\theta JA}$	Thermal resistance, junction to Ambient	833	°C/W
T_{stg}	storage temperature range	-55 to +150	°C
T_j	junction temperature	150	°C

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ELECTRICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN.	Typ.	MAX.	UNIT
$V_{(BR)CBO}$	Collector-base breakown voltage	I_C=-50μA,I_E=0	-60			
$V_{(BR)CEO}$	Collector- emitter breakown voltage	I_C=-1μA,I_B=0	-50			
$V_{(BR)BEO}$	Emitter-base breakown voltage	I_E=-50μA,I_C=0	-6			
I_{CBO}	Collector cut-off current	I_E=0,V_{CB}=-60V			-0.1	μA
I_{EBO}	Emitter cut-off current	I_C=0,V_{EB}=-6V			-0.1	μA
h_{FE}	DC current gain	V_{CE}=-6V,I_C=-1mA	120		560	
$V_{CE(sat)}$	collector-emitter saturation voltage	I_C=-50mA,I_B=-5mA			-0.5	V
C_{obo}	Output capacitance	I_E=0,V_{CB}=-12V,f=1MHz		4.0	5.0	pF
f_T	transition frequency	I_C=-2mA,V_{CE} =-12V, f=30MHz		140		MHz

CLASSIFICATION OF H_{FE}

RANK	Q	R	S
RANGE	120-270	180-390	270-560
MARKING	FQ	FR	FS

TYPICAL CHARACTERISTICS @ Ta=25℃ unless otherwise specified

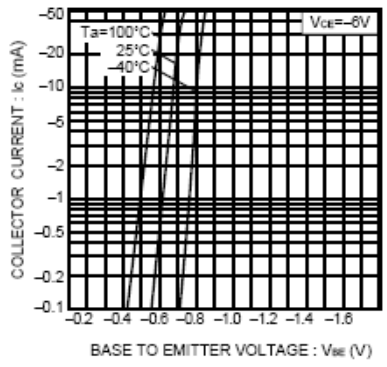

Fig.1 Grounded emitter propagation characteristics

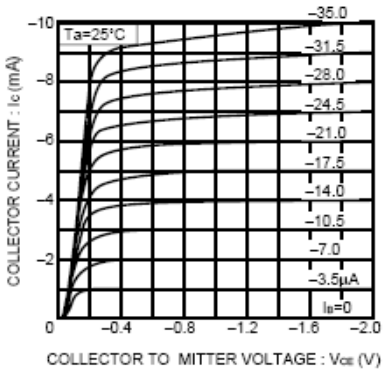

Fig.2 Grounded emitter output characteristics (I)

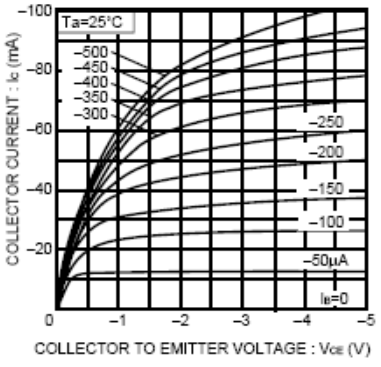

Fig.3 Grounded emitter output characteristics (II)

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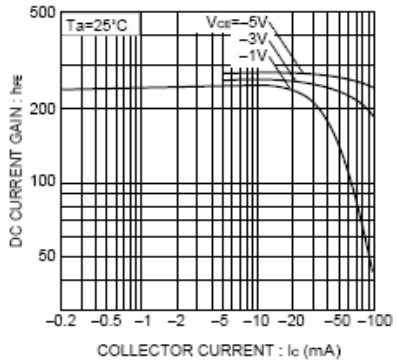

Fig.4 DC current gain vs. collector current (I)

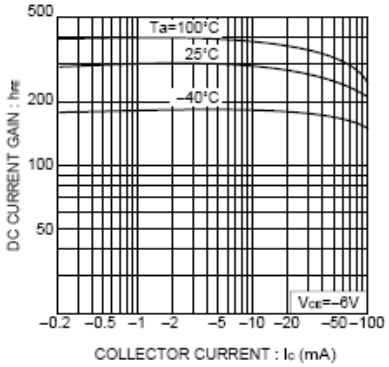

Fig.5 DC current gain vs. collector current (II)

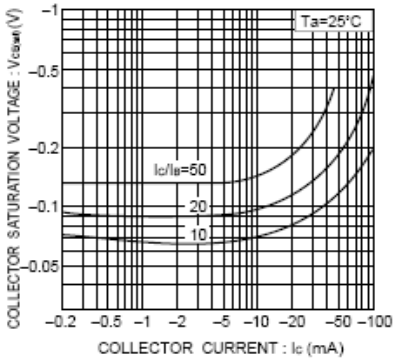

Fig.6 Collector-emitter saturation voltage vs. collector current (I)

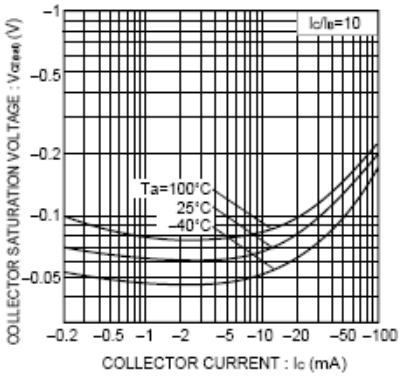

Fig.7 Collector-emitter saturation voltage vs. collector current (II)

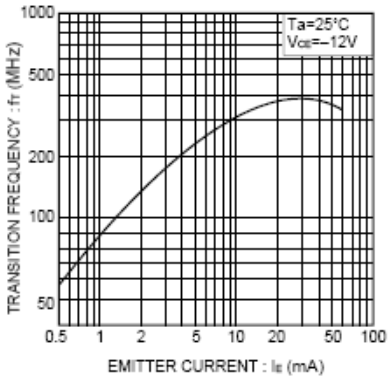

Fig.8 Gain bandwidth product vs. emitter current

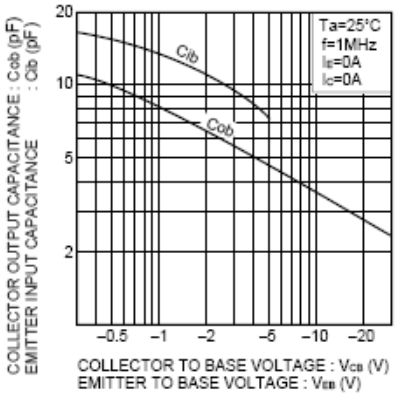

Fig.9 Collector output capacitance vs. collector-base voltage
Emitter inputcapacitance vs. emitter-base voltage

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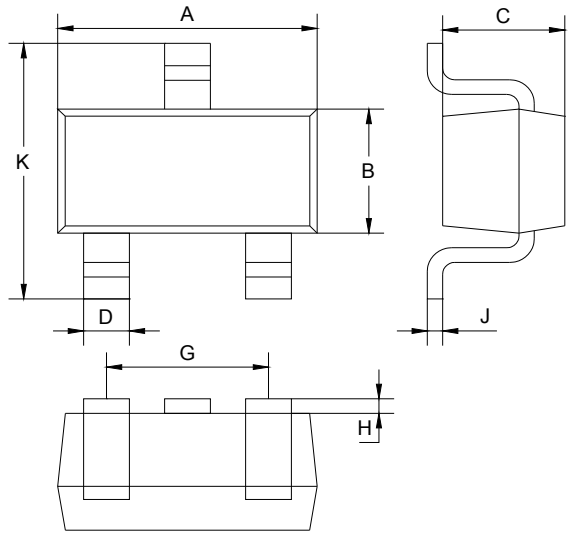
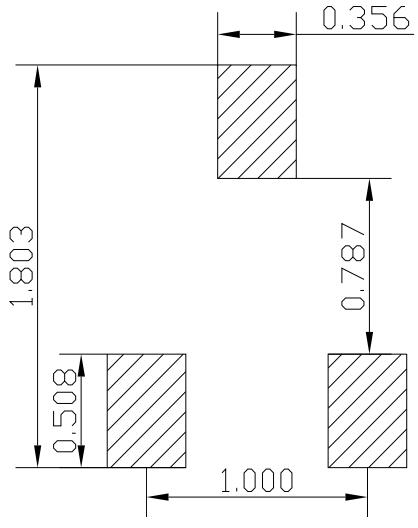
PACKAGE OUTLINE

Plastic surface mounted package SOT-523



SOT-523		
Dim	Min	Max
A	1.5	1.7
B	0.75	0.85
C	0.6	0.8
D	0.15	0.3
G	0.9	1.1
H	0.02	0.1
J	0.1Typical	
K	1.45	1.75
All Dimensions in mm		

SOLDERING FOOTPRINT



Unit : mm

PACKAGE INFORMATION

Device	Package	Shipping
2SA1774	SOT-523	3000/Tape&Reel