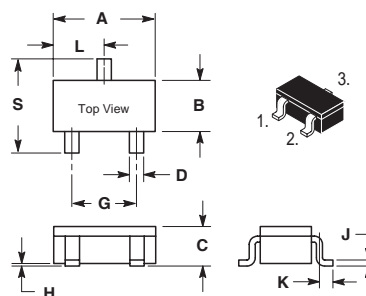


RoHS Compliant Product
A suffix of "-C" specifies halogen & lead-free

FEATURES

- Low Cob.
Cob=3.5pF
- Complementary pair with 2SA1774



SOT-523		
Dim	Min	Max
A	1.50	1.70
B	0.75	0.85
C	0.70	0.90
D	0.25	0.33
G	0.90	1.10
H	0.00	0.10
J	0.10	0.20
K	0.28	0.44
L	0.75	0.85
S	1.45	1.75
All Dimension in mm		

ABSOLUTE MAXIMUM RATINGS at Ta = 25°C

PARAMETER	SYMBOL	RATINGS	UNIT
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	50	V
Emitter to Base Voltage	V_{EBO}	7	V
Collector Current	I_C	0.15	A
Collector Power Dissipation	P_C	0.15	W
Junction, Storage Temperature	T_J, T_{STG}	+150, -55 ~ +150	°C

ABSOLUTE MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS at Ta = 25°C

PARAMETER	TEST CONDITIONS	SYMBOL	MIN.	TYP.	MAX.	UNIT
Collector-Base Breakdown Voltage	$I_C = 50 \mu A$	$V_{(BR)CBO}$	60	-	-	V
Collector-Emitter Breakdown Voltage	$I_C = 1 mA$	$V_{(BR)CEO}$	50	-	-	V
Emitter-Base Breakdown Voltage	$I_E = 50 \mu A$	$V_{(BR)EBO}$	7	-	-	V
Collector Cutoff Current	$V_{CB} = 60V$	I_{CBO}	-	-	0.1	μA
Emitter Cutoff Current	$V_{EB} = 7V$	I_{EBO}	-	-	0.1	μA
Collector-Emitter Saturation Voltage	$I_C / I_B = 50mA / 5mA$	$V_{CE(sat)}$	-	-	0.4	V
DC Current Transfer Ratio	$V_{CE} = 6V, I_C = 1mA$	h_{FE}	120	-	560	
Transition Frequency	$V_{CE} = 12V, I_E = 2mA, f = 100MHz$	f_T	-	180	-	MHz
Output Capacitance	$V_{CE} = 12V, I_E = 0A, f = MHz$	C_{OB}	-	-	3.5	pF

CLASSIFICATION OF h_{FE}

Rank	Q	R	S
Range	120 - 170	180 - 390	270 - 560
Marking	BQ	BR	BS

CHARACTERISTIC CURVES

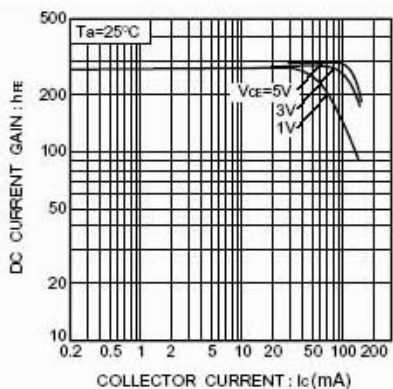


Fig.1 DC current gain vs. collector current

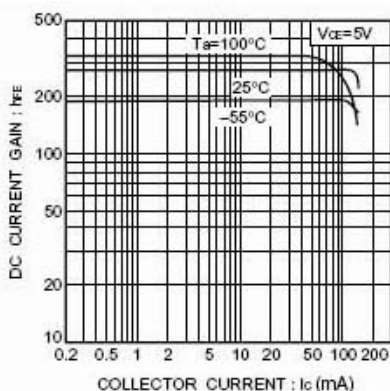


Fig.2 DC current gain vs. collector current

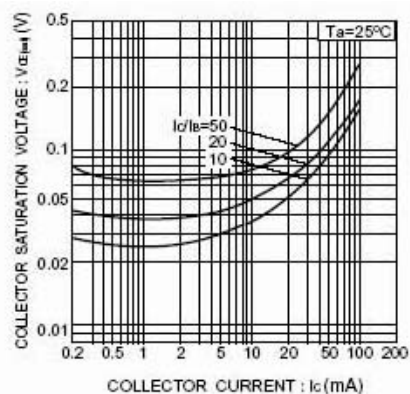


Fig.3 Collector-emitter saturation voltage vs. collector current

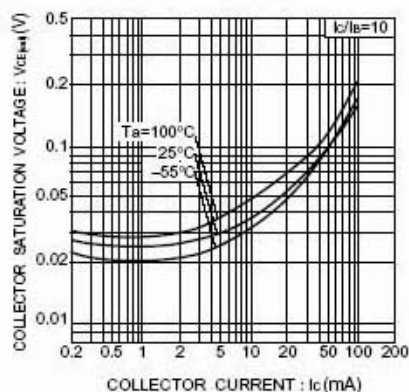


Fig.4 Collector-emitter saturation voltage vs. collector current

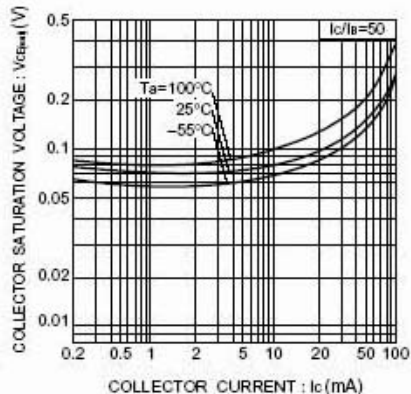


Fig.5 Collector-emitter saturation voltage vs. collector current

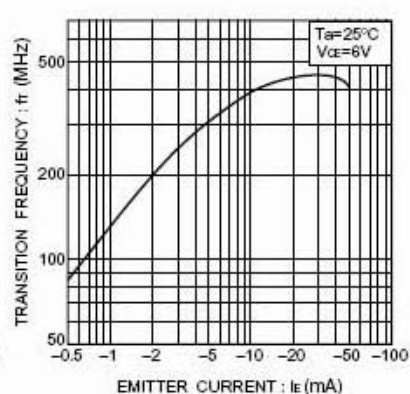


Fig.6 Gain bandwidth product vs. emitter current

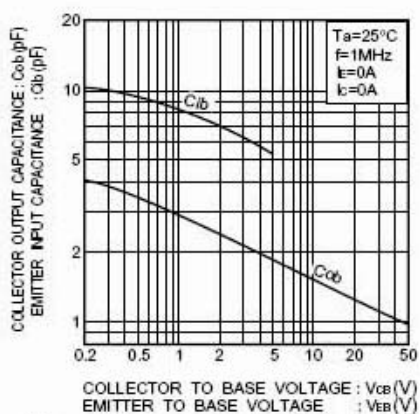


Fig.7 Collector output capacitance vs. collector-base voltage
Emitter input capacitance vs. emitter-base voltage

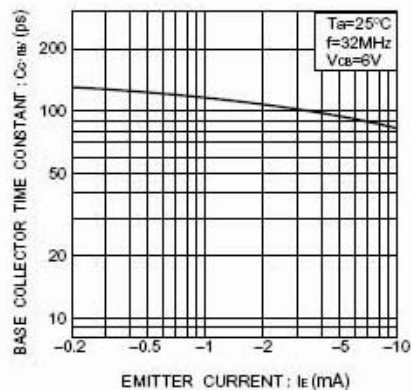


Fig.8 Base-collector time constant vs. emitter current