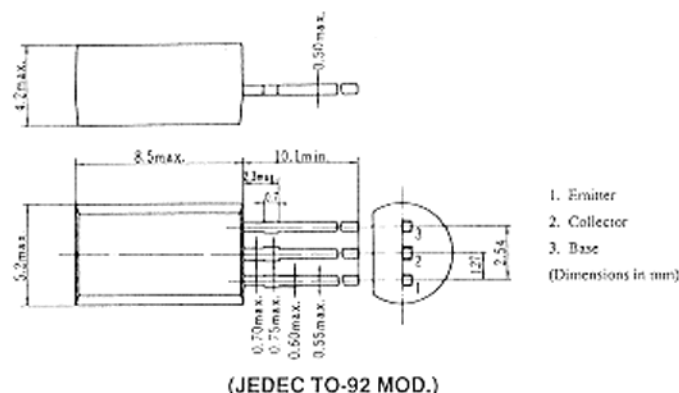


2SD755, 2SD756, 2SD756A

SILICON NPN EPITAXIAL

LOW FREQUENCY HIGH VOLTAGE AMPLIFIER

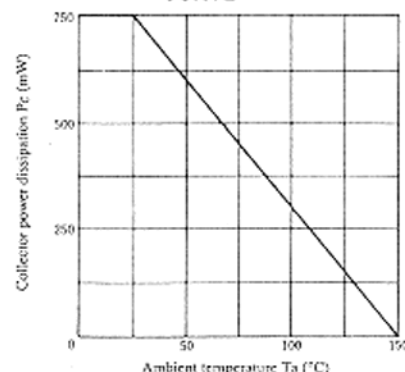
Complementary pair with 2SB715, 2SB716 and 2SB716A



■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD755	2SD756	2SD756A	Unit
Collector to base voltage	V_{CBO}	100	120	140	V
Collector to emitter voltage	V_{CEO}	100	120	140	V
Emitter to base voltage	V_{EBO}	5	5	5	V
Collector current	I_C	50	50	50	mA
Collector power dissipation	P_C	750	750	750	mW
Function temperature	T_j	150	150	150	°C
Storage temperature	T_{stg}	-55 to +150	-55 to +150	-55 to +150	°C

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

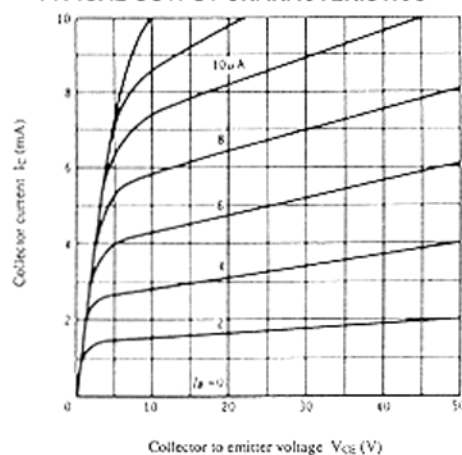
Item	Symbol	Test Condition	2SD755			2SD756			2SD756A			Unit
			min.	typ.	max.	min.	typ.	max.	min.	typ.	max.	
Collector to emitter break-down voltage	$V_{(BR)CEO}$	$I_C = 1\text{mA}, R_{BE} = \infty$	100	—	—	120	—	—	140	—	—	V
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu\text{A}, I_E = 0$	100	—	—	120	—	—	140	—	—	V
Collector cutoff current	I_{CBO}	$V_{CB} = 100\text{V}, I_E = 0$	—	—	0.5	—	—	0.5	—	—	0.5	μA
DC current transfer ratio	h_{FE1}^*	$V_{CE} = 12\text{V}, I_C = 2\text{mA}$	250	—	1200	250	—	800	250	—	500	
	h_{FE2}	$V_{CE} = 12\text{V}, I_C = 10\text{mA}$	125	—	—	125	—	—	125	—	—	
Base to emitter voltage	V_{BE}	$V_{CE} = 12\text{V}, I_C = 2\text{mA}$	—	—	0.75	—	—	0.75	—	—	0.75	V
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 10\text{mA}, I_B = 1\text{mA}$	—	—	0.2	—	—	0.2	—	—	0.2	V
Gain bandwidth product	f_T	$V_{CE} = 12\text{V}, I_C = 5\text{mA}$	—	350	—	—	350	—	—	350	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 25\text{V}, I_E = 0, f = 1\text{MHz}$	—	1.6	—	—	1.6	—	—	1.6	—	pF

* The 2SD755, 2SD756 and 2SD756A are grouped by h_{FE1} as follows.

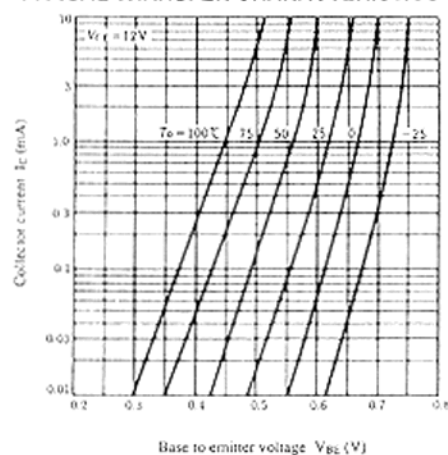
	D	E	F
2SD755	250 to 500	400 to 800	600 to 1200
2SD756	250 to 500	400 to 800	—
2SD756A	250 to 500	—	—

2SD755, 2SD756, 2SD756A

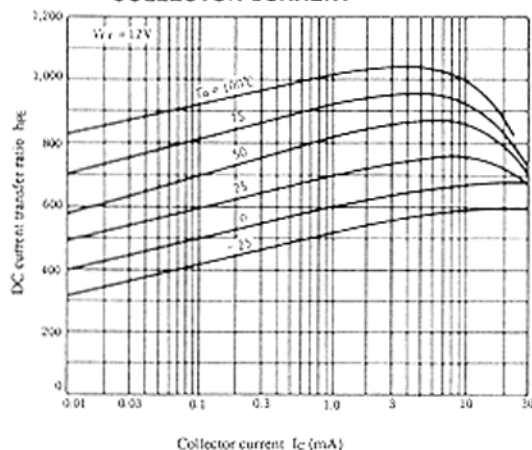
TYPICAL OUTPUT CHARACTERISTICS



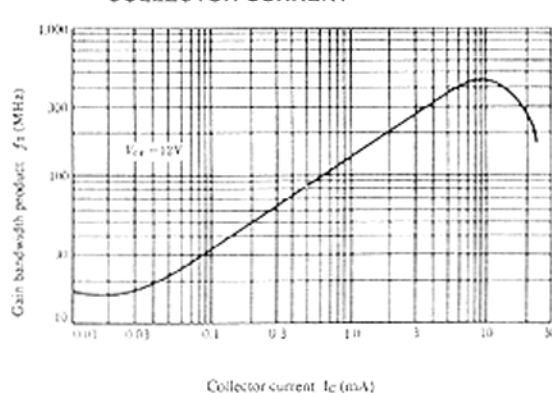
TYPICAL TRANSFER CHARACTERISTICS



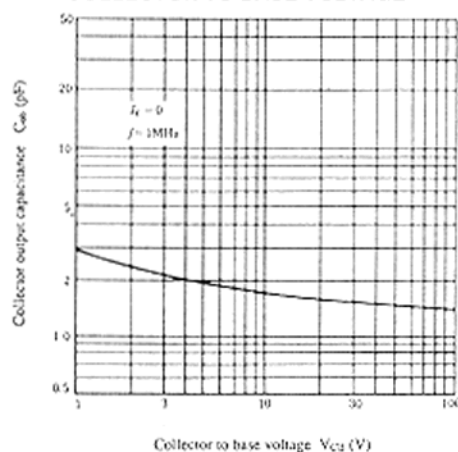
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE



AREA OF SAFE OPERATION

