/ Descriptions

SOT-23 NPN Silicon NPN transistor in a SOT-23 Plastic Package.

/ Features

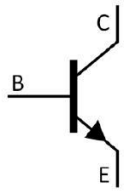
h_{FE}, 2SB624

High h_{FE}, complementary pair with 2SB624.

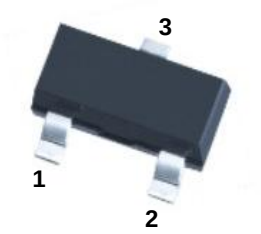
/ Applications

Audio frequency amplifier application.

/ Equivalent Circuit



/ Pinning



PIN1 Base PIN 2 Emitter PIN 3 Collector

/ h_{FE} Classifications & Marking

h_{FE} Classifications Symbol	1	2	3	4	5
h_{FE} Range	110 180	135 220	170 270	200 320	250 400
Marking	HDV1	HDV2	HDV3	HDV4	HDV5

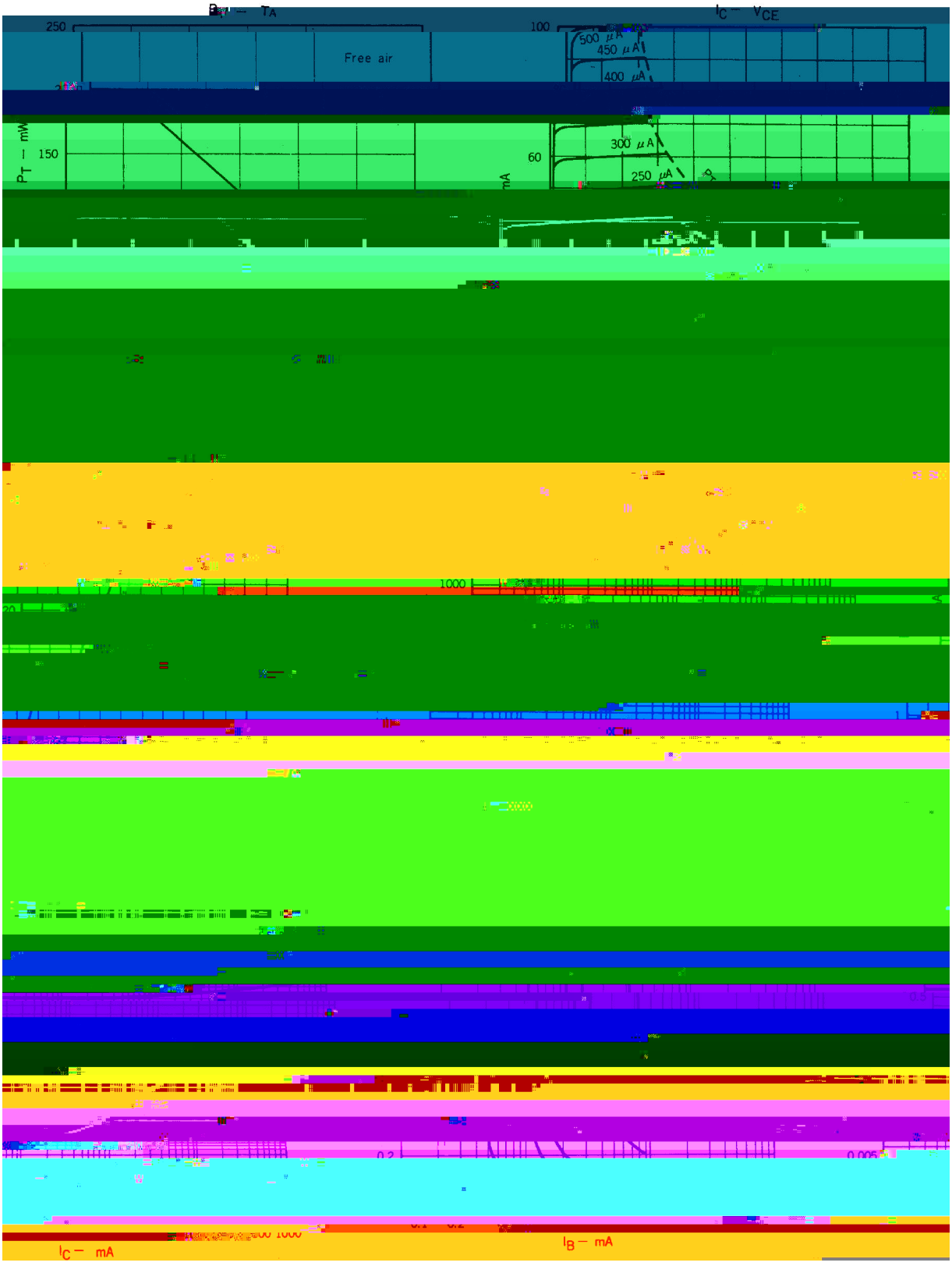
/ Absolute Maximum Ratings(Ta=25)

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	30	V
Collector to Emitter Voltage	V_{CEO}	25	V
Emitter to Base Voltage	V_{EBO}	5.0	V
Collector Current	I_C	700	mA
Collector Power Dissipation	P_C	200	mW
Junction Temperature	T_j	150	
Storage Temperature Range	T_{stg}	-55 150	

/ Electrical Characteristics(Ta=25)

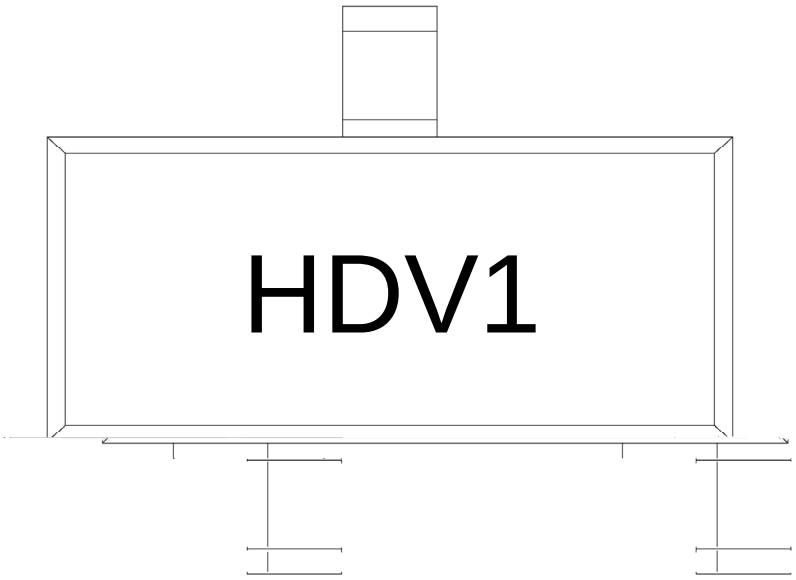
Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector Cut-Off Current	I_{CBO}	V_{CB}=30V I_E=0			0.1	μA
Emitter Base Cut-Off Current	I_{EBO}	V_{EB}=5.0V I_C=0			0.1	μA
DC Current Gain	$h_{FE(1)}$	V_{CE}=1.0V I_C=100mA	110	200	400	
	$h_{FE(2)}$	V_{CE}=1.0V I_C=700mA	50			
Collector to Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=700mA I_B=70mA		0.22	0.60	V
Base to Emitter Saturation Voltage	V_{BE}	V_{CE}=6.0V I_C=10mA	0.60	0.64	0.70	V
Transition Frequency	f_T	V_{CE}=6.0V I_C=10mA		170		MHz
Collector Output Capacitance	C_{ob}	V_{CB}=6.0V I_E=0 f=10MHz		12		pF

/ Electrical Characteristic Curve



2SD596

/ Marking Instructions



H

DV

1: h_{FE}

Note:

H: Company Code

DV: Product Type Code

1: h_{FE} Classifications Symbol Code