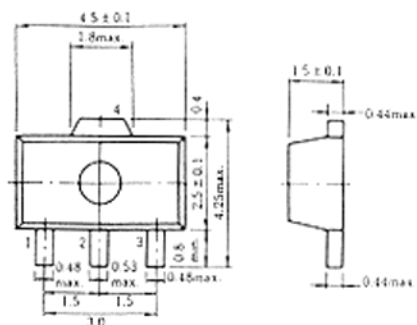


## 2SD1368

SILICON NPN EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER

Complementary pair with 2SB1002



(UPAK)

1. Base
  2. Collector
  3. Emitter
  4. Collector
- (Dimensions in mm)

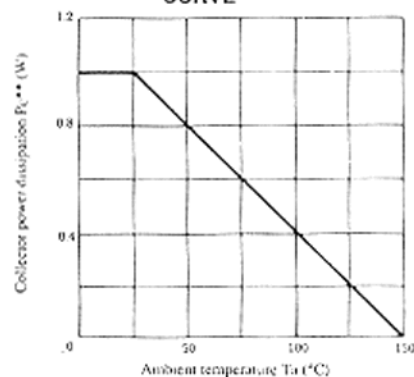
### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1368	Unit
Collector to base voltage	$V_{CBO}$	100	V
Collector to emitter voltage	$V_{CEO}$	50	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	1	A
Collector peak current	$i_{C(pk)}$ *	1.5	A
Collector power dissipation	$P_C^{**}$	1	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{stg}$	-55 to +150	°C

\*  $PW \leq 10ms$ , Duty cycle  $\leq 20\%$ .

\*\* Value on the alumina ceramic board (12.5 × 20 × 0.7mm)

### MAXIMUM COLLECTOR DISSIPATION CURVE



### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	100	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	50	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6	—	—	V
Collector cutoff current	$I_{CBO}$	$V_{CB} = 80V, I_E = 0$	—	—	0.1	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 4V, I_C = 0$	—	—	0.1	$\mu A$
DC current transfer ratio	$h_{FE}^*$	$V_{CE} = 2V, I_C = 0.1A$	100	—	500	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 1A, I_B = 0.1A, \text{Pulse}$	—	—	0.3	V
Base to emitter saturation voltage	$V_{BE(sat)}$	$I_C = 1A, I_B = 0.1A, \text{Pulse}$	—	—	1.2	V
Gain bandwidth product	$f_T$	$V_{CE} = 2V, I_C = 10mA, \text{Pulse}$	—	100	—	MHz
Collector output capacitance	$C_{ob}$	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	20	—	pF

\* The 2SD1368 is grouped by  $h_{FE}$  as follows.

Mark	CA	CB	CC
$h_{FE}$	100 to 200	160 to 320	250 to 500

■ See characteristic curves of 2SD789.