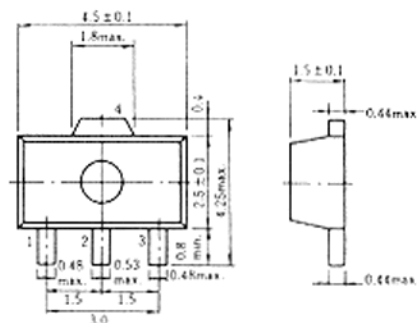


2SD1419

SILICON NPN EPITAXIAL

LOW FREQUENCY POWER AMPLIFIER

Complementary pair with 2SB1026



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

(UPAK)

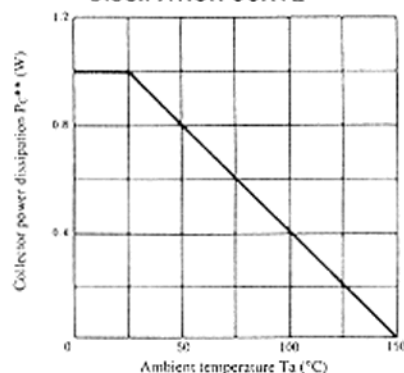
■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1419	Unit
Collector to base voltage	V_{CBO}	120	V
Collector to emitter voltage	V_{CEO}	100	V
Emitter to base voltage	V_{EBO}	5	V
Collector current	I_C	1	A
Collector peak current	$i_{C(peak)}$ *	2	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 POWER DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	120	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1mA, R_{BE} = \infty$	100	—	—	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	5	—	—	V
Collector cutoff current	I_{CBO}	$V_{CB} = 100V, I_E = 0$	—	—	10	μA
DC current transfer ratio	h_{FE1} *	$V_{CE} = 5V, I_C = 150mA$ **	60	—	200	
	h_{FE2}	$V_{CE} = 5V, I_C = 500mA$ **	30	—	—	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 500mA, I_B = 50mA$ **	—	—	1	V
Base to emitter voltage	V_{BE}	$V_{CE} = 5V, I_C = 150mA$ **	—	—	1.5	V
Gain bandwidth product	f_T	$V_{CE} = 5V, I_C = 150mA$ **	—	140	—	MHz
Collector output capacitance	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	12	—	pF

* The 2SD1419 is grouped by h_{FE1} as follows.

** Pulse Test

Mark	DD	DE
$f_{T(1)}$	60 to 120	100 to 200

■ See characteristic curves of 2SD1418.