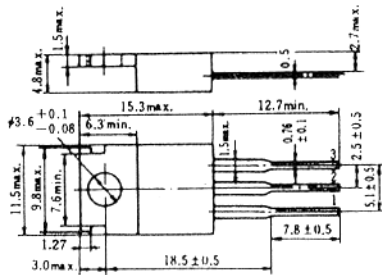


2SD1601, 2SD1602

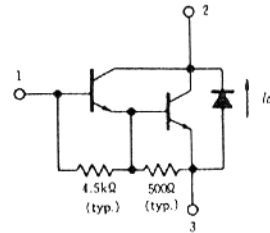
SILICON NPN TRIPLE DIFFUSED

LOW FREQUENCY POWER AMPLIFIER

COMPLEMENTARY PAIR WITH 2SB1101, 2SB1102



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



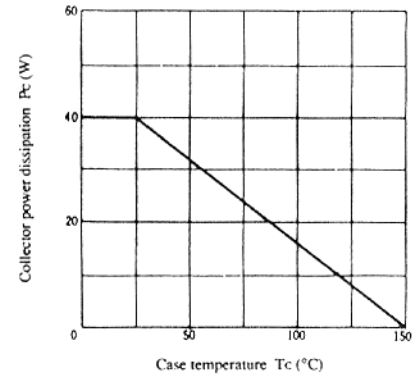
(JEDEC TO-220AB)

■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1601	2SD1602	Unit
Collector to base voltage	VCBO	60	80	V
Collector to emitter voltage	VCEO	60	80	V
Emitter to base voltage	VEBO	7	7	V
Collector current	IC	4	4	A
Collector peak current	iC(peak)	8	8	A
Collector power dissipation	PC*	40	40	W
Junction temperature	Tj	150	150	°C
Storage temperature	Tstg	-55 to +150	-55 to +150	°C
C to E diode forward current	ID*	4	4	A

* Value at Tc = 25°C.

MAXIMUM COLLECTOR DISSIPATION CURVE



■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	2SD1601			2SD1602			Unit
			min.	typ.	max.	min.	typ.	max.	
Collector to emitter breakdown voltage	V(BR)CEO	IC = 25mA, RBE = ∞	60	—	—	80	—	—	V
Emitter to base breakdown voltage	V(BR)EBO	IE = 50mA, IC = 0	7	—	—	7	—	—	V
Collector cutoff current	ICBO	VCE = 60V, IE = 0	—	—	100	—	—	100	μA
	ICEO	VCE = 50V, RBE = ∞	—	—	10	—	—	10	μA
DC current transfer ratio	hFE	VCE = 3V, IC = 2A*	1000	—	20000	1000	—	20000	
Collector to emitter saturation voltage	VCE(sat)1	IC = 2A, IB = 4mA*	—	—	1.5	—	—	1.5	V
	VCE(sat)2	IC = 4A, IB = 40mA*	—	—	3.0	—	—	3.0	V
Base to emitter saturation voltage	VBE(sat)1	IC = 2A, IB = 4mA*	—	—	2.0	—	—	2.0	V
	VBE(sat)2	IC = 4A, IB = 40mA*	—	—	3.5	—	—	3.5	V
C to E diode forward voltage	VD	ID = 4A*	—	—	3.0	—	—	3.0	V
Turn on time	ton	IC = 2A, IB1 = -IB2 = 4mA	—	1.0	—	—	1.0	—	μs
Storage time	tstg		—	6.0	—	—	6.0	—	
Fall time	tr		—	1.0	—	—	1.0	—	

* Pulse Test.

