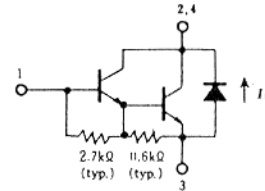
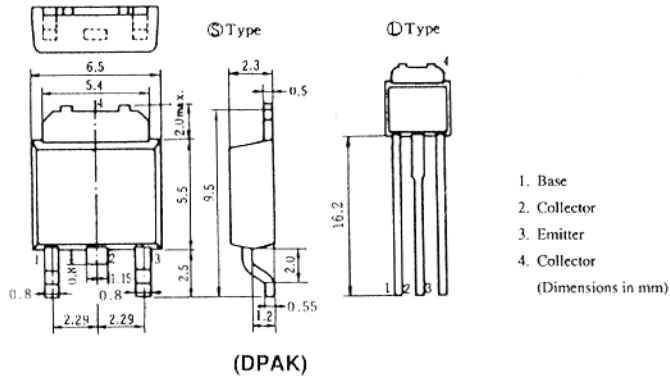


## 2SD1520(L), 2SD1520(S)

SILICON NPN EPITAXIAL  
MEDIUM SPEED POWER AMPLIFIER

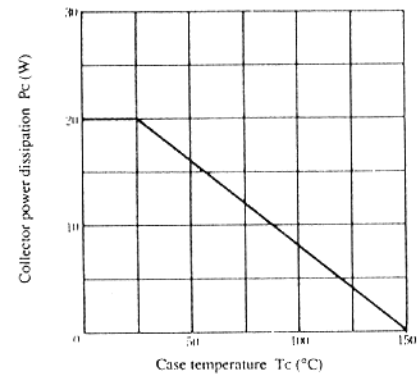


### ■ ABSOLUTE MAXIMUM RATINGS (Ta=25°C)

Item	Symbol	2SD1520(L), 2SD1520(S)	Unit
Collector to base voltage	V <sub>CB0</sub>	100	V
Collector to emitter voltage	V <sub>CEO</sub>	80	V
Emitter to base voltage	V <sub>EBO</sub>	7	V
Collector current	I <sub>C</sub>	4	A
Collector peak current	i <sub>C(peak)</sub>	8	A
Collector power dissipation	P <sub>C*</sub>	20	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>stg</sub>	-55 to +150	°C
C to E diode forward current	I <sub>D*</sub>	4	A

\* Value at T<sub>c</sub> = 25°C

### ■ MAXIMUM COLLECTOR DISSIPATION CURVE



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

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 25mA, R <sub>BE</sub> = ∞	80	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 50mA, I <sub>C</sub> = 0	7	—	—	V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 80V, I <sub>E</sub> = 0	—	—	100	μA
	I <sub>CEO</sub>	V <sub>CE</sub> = 60V, R <sub>BE</sub> = ∞	—	—	10	μA
DC current transfer ratio	h <sub>FE</sub>	V <sub>CE</sub> = 3V, I <sub>C</sub> = 2A*	1000	—	20000	
Collector to emitter saturation voltage	V <sub>CE(sat)1</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 4mA*	—	—	1.5	V
	V <sub>CE(sat)2</sub>	I <sub>C</sub> = 4A, I <sub>B</sub> = 40mA*	—	—	3.0	V
Base to emitter saturation voltage	V <sub>BE(sat)1</sub>	I <sub>C</sub> = 2A, I <sub>B</sub> = 4mA*	—	—	2.0	V
	V <sub>BE(sat)2</sub>	I <sub>C</sub> = 4A, I <sub>B</sub> = 40mA*	—	—	3.5	V
C to E diode forward voltage	V <sub>D</sub>	I <sub>D</sub> = 4A	—	—	3.0	V
Turn on time	t <sub>on</sub>	I <sub>C</sub> = 2A, I <sub>B1</sub> = -I <sub>B2</sub> = 4mA	—	0.5	—	μs
Storage time	t <sub>stg</sub>		—	4.5	—	μs
Fall time	t <sub>f</sub>		—	1.0	—	μs

\* Pulse Test.

