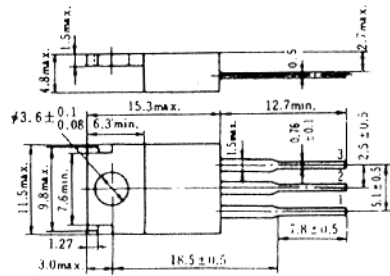


## 2SD1527

SILICON NPN TRIPLE DIFFUSED  
HIGH VOLTAGE AMPLIFIER



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

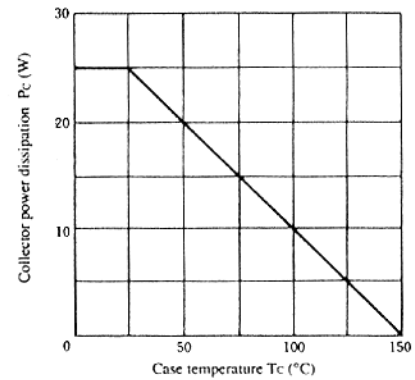
(JEDEC TO-220AB)

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

Item	Symbol	2SD1527	Unit
Collector to base voltage	V <sub>CB0</sub>	1000	V
Collector to emitter voltage	V <sub>CEO</sub>	1000	V
Emitter to base voltage	V <sub>EBO</sub>	5	V
Collector current	I <sub>C</sub>	0.5	A
Collector power dissipation	P <sub>C</sub>	1.8	W
	P <sub>C</sub> *	25	W
Junction temperature	T <sub>j</sub>	150	°C
Storage temperature	T <sub>sig</sub>	-55 to +150	°C

\* Value at T<sub>c</sub> = 25°C.

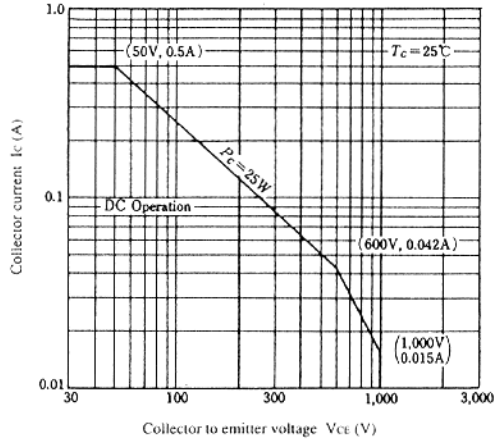
### MAXIMUM COLLECTOR DISSIPATION CURVE



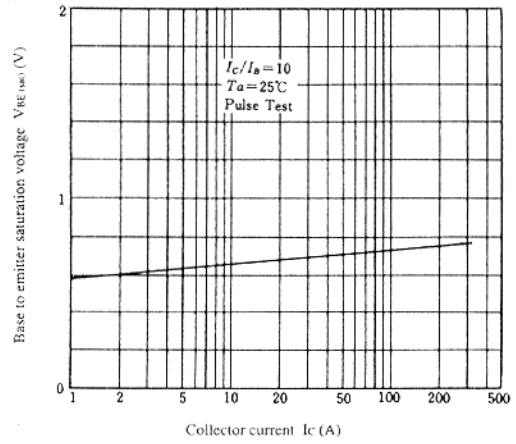
### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to emitter breakdown voltage	V <sub>(BR)CEO</sub>	I <sub>C</sub> = 1mA, R <sub>BE</sub> = ∞	1000	—	—	V
Emitter to base breakdown voltage	V <sub>(BR)EBO</sub>	I <sub>E</sub> = 1mA, I <sub>C</sub> = 0	5	—	—	V
Collector cutoff current	I <sub>CB0</sub>	V <sub>CB</sub> = 800V, I <sub>E</sub> = 0	—	—	10	μA
DC current transfer ratio	h <sub>FE1</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 10mA	10	—	—	
	h <sub>FE2</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 100mA	10	—	—	
Base to emitter voltage	V <sub>BE</sub>	V <sub>CE</sub> = 5V, I <sub>C</sub> = 100mA	—	—	1.2	V
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = 300mA, I <sub>B</sub> = 60mA	—	—	5	V
Gain bandwidth product	f <sub>T</sub>	V <sub>CE</sub> = 20V, I <sub>C</sub> = 50mA	—	5	—	MHz
Collector output capacitance	C <sub>ob</sub>	V <sub>CB</sub> = 100V, I <sub>E</sub> = 0, f = 1MHz	—	5	—	pF

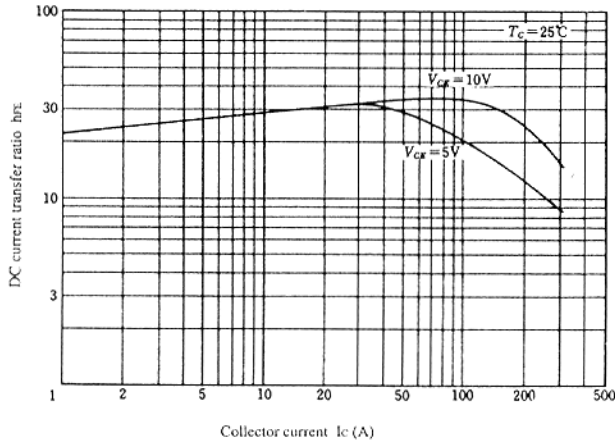
AREA OF SAFE OPERATION



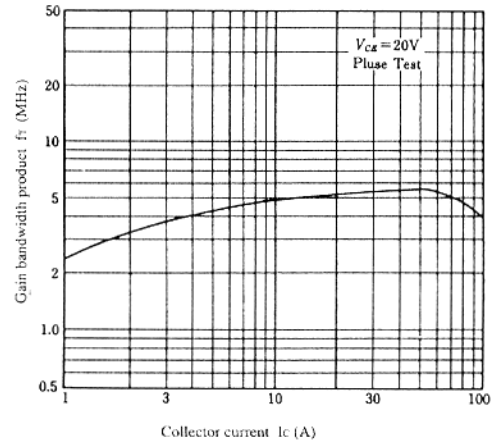
BASE TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



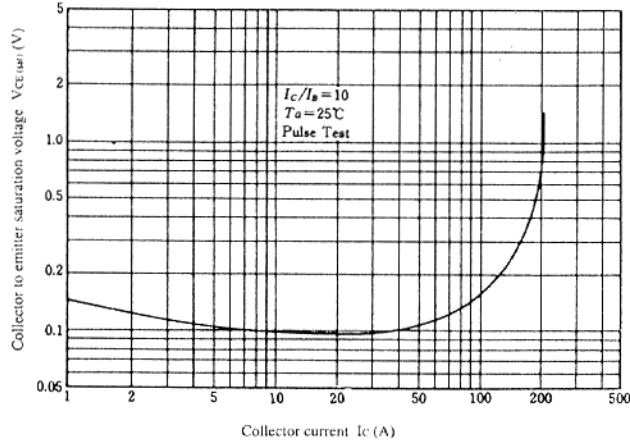
DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



GAIN BANDWIDTH PRODUCT VS. COLLECTOR CURRENT



COLLECTOR TO EMITTER SATURATION VOLTAGE VS. COLLECTOR CURRENT



COLLECTOR OUTPUT CAPACITANCE VS. COLLECTOR TO BASE VOLTAGE

