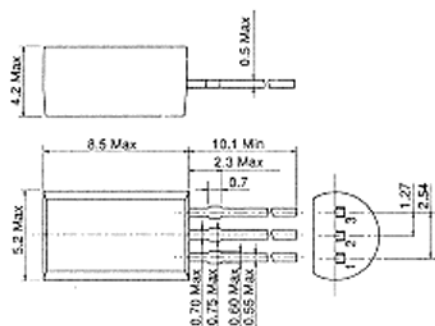
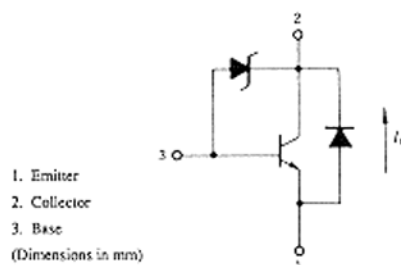


## 2SD1922

SILICON NPN EPITAXIAL  
LOW FREQUENCY POWER AMPLIFIER



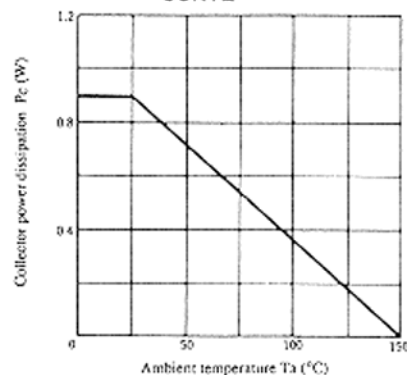
(JEDEC TO-92 MOD.)



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

Item	Symbol	2SD1922	Unit
Collector to base voltage	$V_{CBO}$	25	V
Collector to emitter voltage	$V_{CEO}$	25	V
Emitter to base voltage	$V_{EBO}$	6	V
Collector current	$I_C$	0.8	A
Collector peak current	$i_{C(peak)}$	1.5	A
C to E diode forward current	$I_D$	0.8	A
Collector power dissipation	$P_C$	0.9	W
Junction temperature	$T_j$	150	°C
Storage temperature	$T_{sig}$	-55 to +150	°C

### MAXIMUM COLLECTOR DISSIPATION CURVE



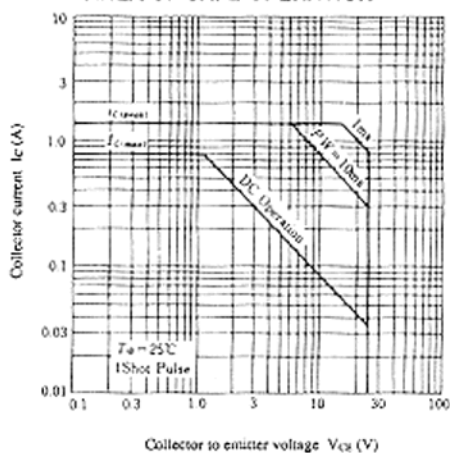
### ■ ELECTRICAL CHARACTERISTICS (Ta=25°C)

Item	Symbol	Test Condition	min.	typ.	max.	Unit
Collector to base breakdown voltage	$V_{(BR)CBO}$	$I_C = 10\mu A, I_E = 0$	25	—	—	V
Collector to emitter breakdown voltage	$V_{(BR)CEO}$	$I_C = 1 mA, R_{BE} = \infty$	25	—	35	V
Collector to emitter sustaining voltage	$V_{CEO(sus)}$	$I_C = 0.8 A, R_{BE} = \infty, L = 20mH$	25	—	35	V
Emitter to base breakdown voltage	$V_{(BR)EBO}$	$I_E = 10\mu A, I_C = 0$	6	—	—	V
Collector cutoff current	$I_{CBO}$	$V_{CB} = 20V, I_E = 0$	—	—	0.2	$\mu A$
	$I_{CEO}$	$V_{CE} = 20V, R_{BE} = \infty$	—	—	0.5	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB} = 5V, I_C = 0$	—	—	0.2	$\mu A$
DC current transfer ratio	$h_{FE}$	$V_{CE} = 2V, I_C = 0.1A^*$	250	—	1200	
Collector to emitter saturation voltage	$V_{CE(sat)}$	$I_C = 0.8 A, I_B = 80mA^*$	—	—	0.3	V
C to E diode forward voltage	$V_D$	$I_D = 0.8A^*$	—	—	1.1	V

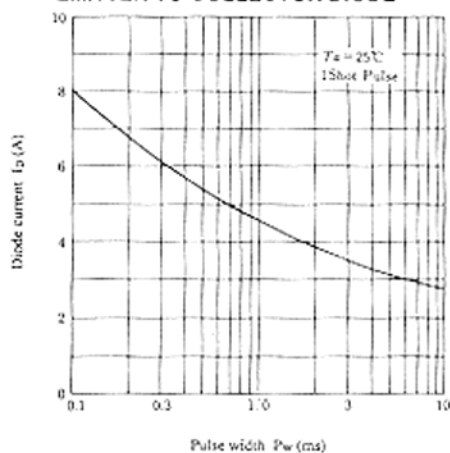
\* Pulse Test

## 2SD1922

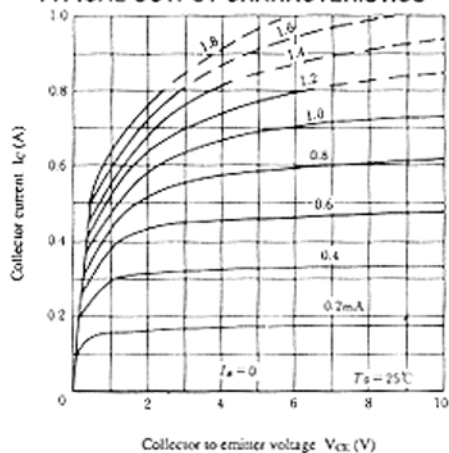
### AREA OF SAFE OPERATION



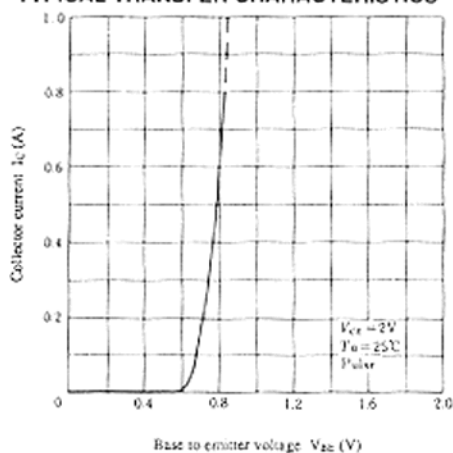
### AREA OF SAFE OPERATION OF EMITTER TO COLLECTOR DIODE



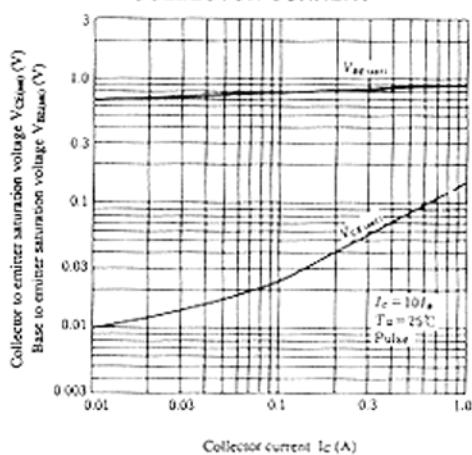
### TYPICAL OUTPUT CHARACTERISTICS



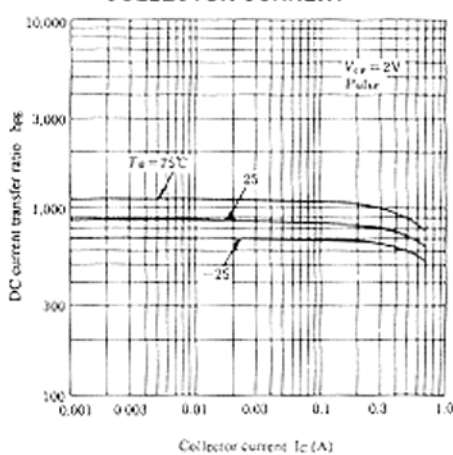
### TYPICAL TRANSFER CHARACTERISTICS



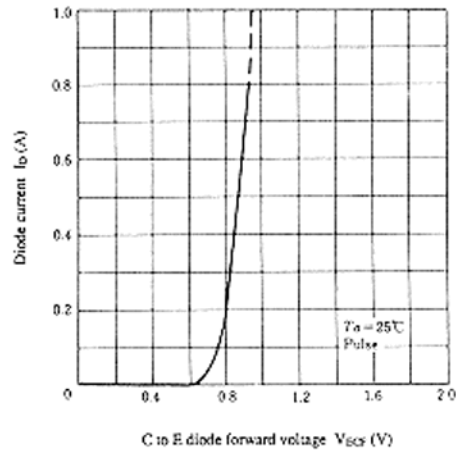
### SATURATION VOLTAGE VS. COLLECTOR CURRENT



### DC CURRENT TRANSFER RATIO VS. COLLECTOR CURRENT



TYPICAL CHARACTERISTICS OF  
EMITTER TO COLLECTOR DIODE



COLLECTOR OUTPUT CAPACITANCE VS.  
COLLECTOR TO BASE VOLTAGE

