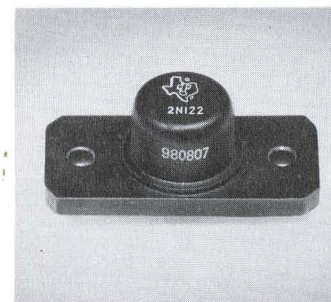




N-P-N GROWN JUNCTION SILICON POWER TRANSISTOR

8.75 Watts at 25°C • 3.5 Watts at 100°C

Welded Enclosure



ACTUAL SIZE

TYPE 2N122
BULLETIN NO. DL-5-949

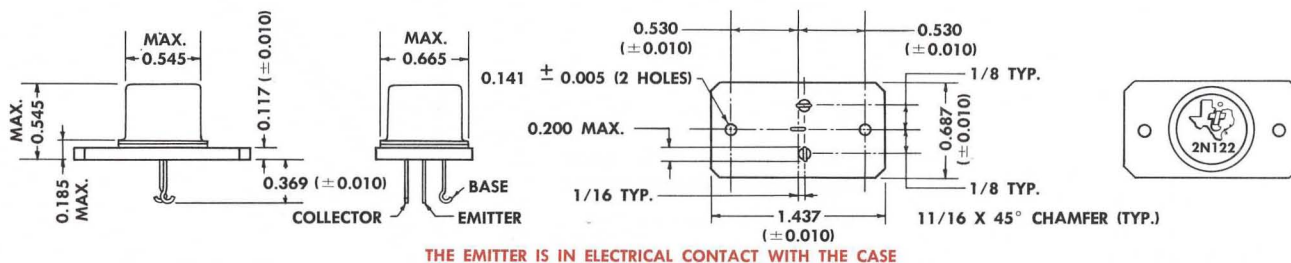
JULY, 1958

qualification testing

Each unit is heat cycled from -65°C to +175°C for 10 cycles and then humidity cycled at temperatures from -65°C to +75°C in air at 95% relative humidity. The hermetic seal is tested by subjecting immersed units to hydraulic pressure. A rigorous tumbling test subjects each unit to a number of random mechanical shocks to insure maximum mechanical reliability. Each unit is thoroughly tested to determine the electrical design characteristics. Production samples are life tested periodically to determine the effects of storage and dissipation and insure maximum attainable reliability.

mechanical data

Metal case with glass-to-metal hermetic seal between case and leads. Approximate weight is 0.7 oz.



absolute maximum ratings at 25°C base temperature (except where advanced temperatures are indicated)

Emitter Voltage Referred to Base.....	1 V
Collector Voltage Referred to Base.....	120 V
Collector Current.....	140 mA
Device Dissipation.....	8.75 W
at 100°C.....	3.5 W
Maximum Storage Temperature Range.....	-65 to +150°C

design characteristics at T_b = 25°C

				min.	max.	unit
I _{co}	Collector Cutoff Current	V _c = 50V	I _e = 0	—	10	μa
I _{co}	Collector Cutoff Current	V _c = 100V	I _e = 0	—	50	μa
I _{co}	Collector Cutoff Current	V _c = 120V	I _e = 0	—	100	μa
R _{cs}	Collector Saturation Resistance	I _b = 50mA	I _c = 100mA	—	200	Ohm
A _p	Power Gain, Common Emitter, 1 Watt Output, 100°C			28	—	db
A _p	Power Gain, Common Emitter, 2.5 Watt Output, 100°C			18	—	db
h _{FE}	D. C. Beta	V _c = 35V	I _c = 100ma	3	—	—

LICENSED UNDER BELL SYSTEM PATENTS

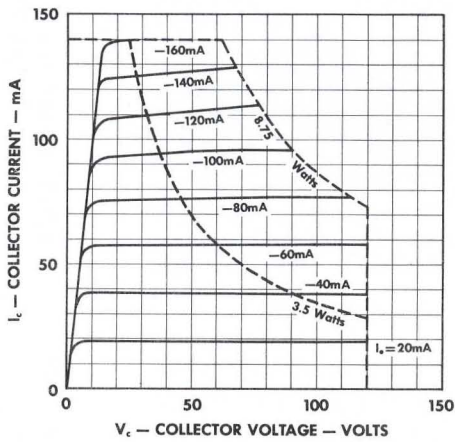
SEMICONDUCTOR-COMPONENTS DIVISION

TEXAS INSTRUMENTS
INCORPORATED
POST OFFICE BOX 312 • DALLAS, TEXAS

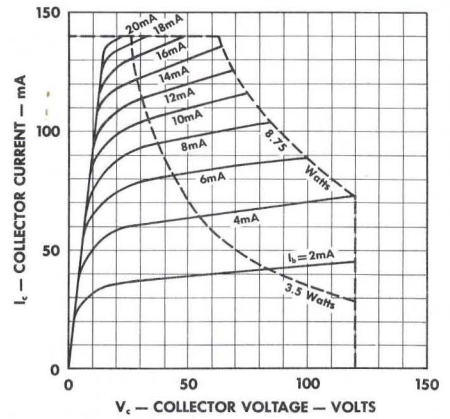
TYPE 2N122

TYPICAL CHARACTERISTICS

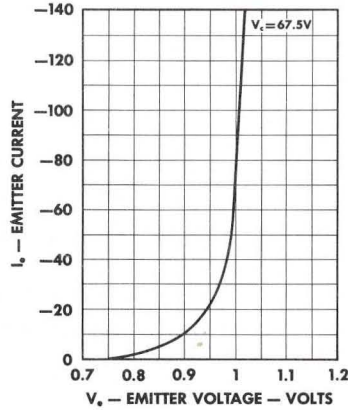
COMMON BASE OUTPUT CHARACTERISTICS



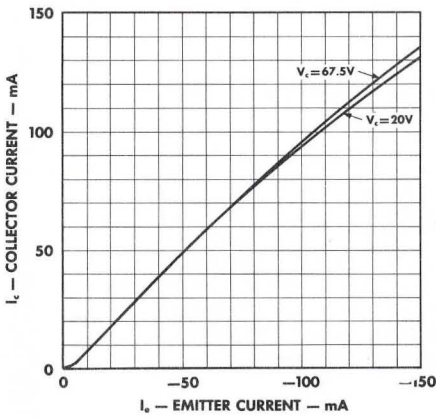
COMMON EMITTER OUTPUT CHARACTERISTICS



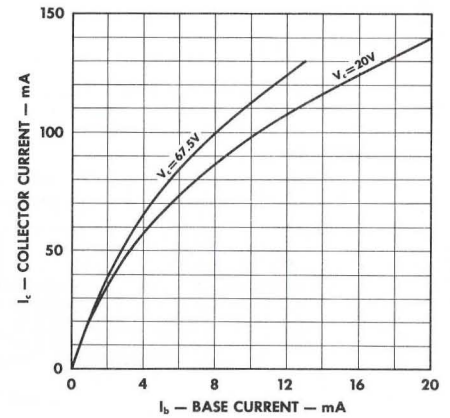
EMITTER CURRENT VS. EMITTER VOLTAGE - COMMON BASE



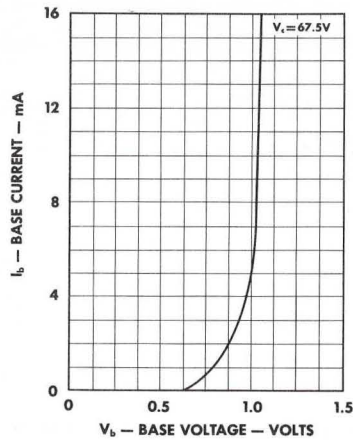
COLLECTOR CURRENT VS. EMITTER CURRENT - COMMON BASE



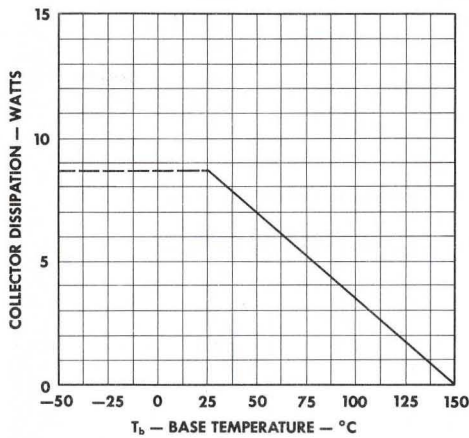
COLLECTOR CURRENT VS. BASE CURRENT COMMON EMITTER



BASE CURRENT VS. BASE VOLTAGE - COMMON EMITTER



MAXIMUM COLLECTOR DISSIPATION



COMMON EMITTER BIAS CHARACTERISTICS

