New Jersey Semi-Conductor Products, Inc.

20 STERN AVE.
SPRINGFIELD, NEW JERSEY 07081
U.S.A.

TELEPHONE: (973) 376-2922
(212) 227-6005
FAX: (973) 376-8960

10AM20

20 Watts, 20 Volts, Class A
Linear to 1000 MHz

GENERAL DESCRIPTION

The 10AM20 is a COMMON EMITTER transistor capable of providing 20 Watts of Class A, RF output power to 1000 MHz. This transistor is specifically designed for general Class A amplifier applications. It utilizes gold metalization and diffused ballasting to provide high reliability and supreme ruggedness. The transistor uses a fully hermetic High Temperature Solder Sealed package.

ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 63 Watts

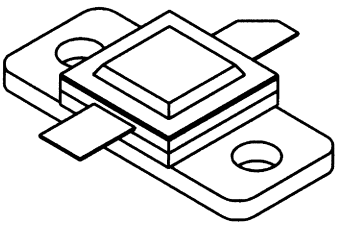
Maximum Voltage and Current

BVces	Collector to Emitter Voltage	50 Volts
BVebo	Emitter to Base Voltage	3.5 Volts
Ic	Collector Current	5.5 Amps

Maximum Temperatures

Storage Temperature	- 65 to + 200°C
Operating Junction Temperature	+ 200°C

CASE OUTLINE
55AT, STYLE 2



SEE NOTE BELOW

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Out	F = 1.0 GHz	20	24		Watts
Pin	Power Input	Ic = 2.8 A		3.0	4.5	Watts
Pg	Power Gain	Vcc = 20 Volts	6.5	7.0		dB
Ft	Transition Frequency	Vce = 22 V, Ic = 2.8 A				GHz
VSWR	Load Mismatch Tolerance				3:1	

BVebo	Emitter to Base Breakdown	Ie = 15 mA	3.5			Volts
BVces	Collector to Emitter Breakdown	Ic = 180 mA	50			Volts
BVceo	Collector to Emitter Breakdown	Ic = 180 mA	24			Volts
H_{FE}	DC Current Gain	Vce = 5 V, Ic = 1.0 A	20	40		
Cob	Output Capacitance	Vcb = 28V, f =1.0 MHz				pF
θjc	Thermal Resistance			1.2	1.5	°C/W

Case Outline Note: During 1995 Ghz will be converting the 55AT style flange to the version using a slot in the mounting area, refer to 55AW.

Quality Semi-Conductors