UMIL 10

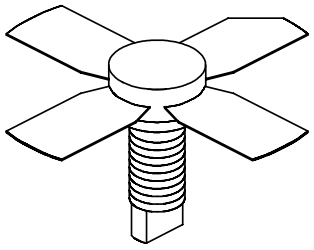
100 Watts, 28 Volts, Class AB or C
Defcom 100 - 400 MHz

GENERAL DESCRIPTION

The UMIL10 is a COMMON EMITTER broadband transistor specifically intended for use in the 100-400 MHz frequency band. It may be operated in Class AB or C. Gold metallization and silicon diffused resistors ensure ruggedness and high reliability.

CASE OUTLINE

55FT, Style 2



ABSOLUTE MAXIMUM RATINGS

Maximum Power Dissipation @ 25°C 28 Watts

Maximum Voltage and Current

BVces	Collector to Emiter Voltage	55 Volts
BVebo	Emitter to Base Voltage	4.0 Volts
Ic	Collector Current	1.5 A

Maximum Temperatures

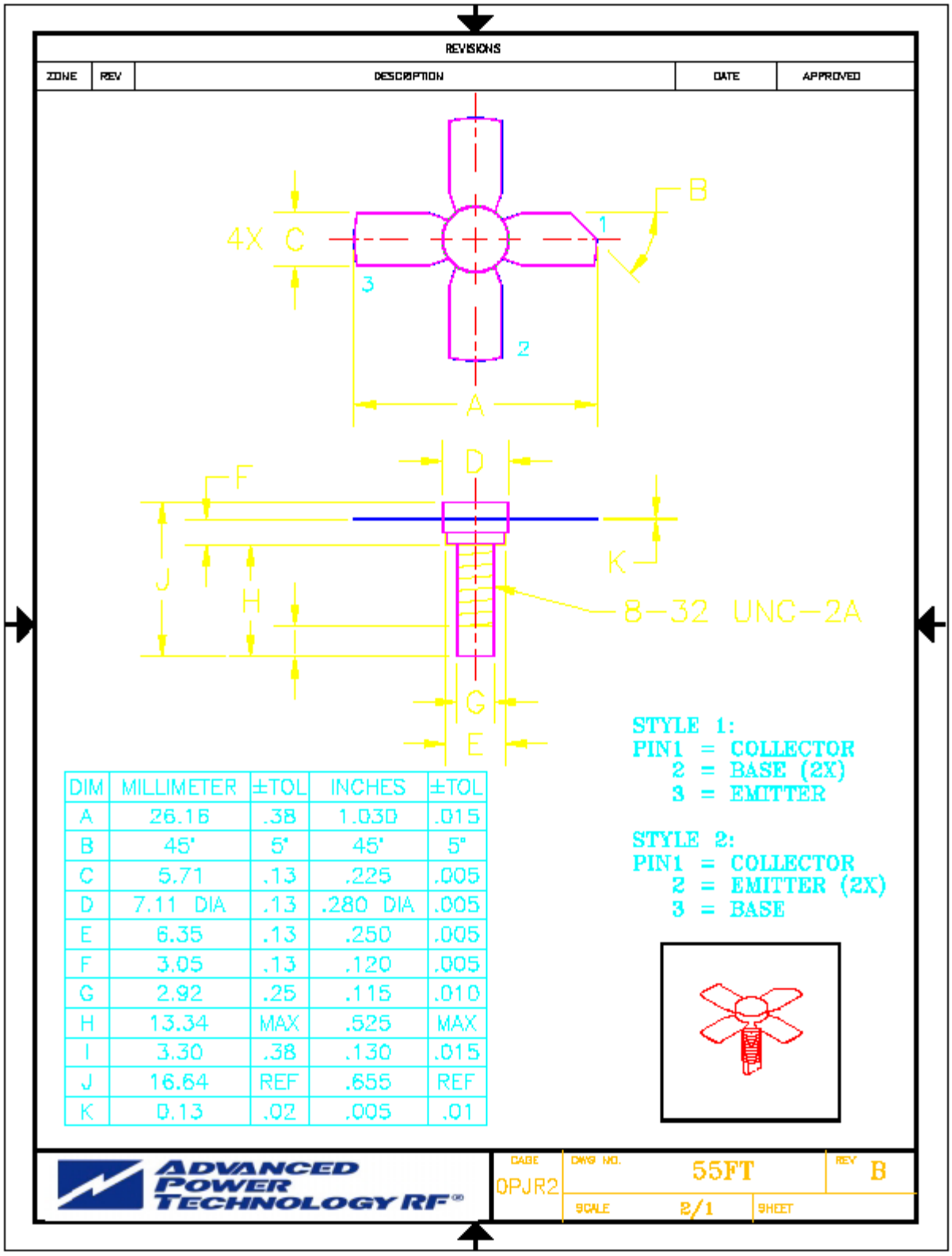
Storage Temperature	- 65 to +150°C
Operating Junction Temperature	+200°C

ELECTRICAL CHARACTERISTICS @ 25 °C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
Pout	Power Output	F = 400 MHz	10			Watts
Pin	Power Input	Vcc = 28 Volts			1.0	Watts
Pg	Power Gain	Class C Bias	10.0			dB
η_c	Efficiency			60		%
VSWR	Load Mismatch Tolerance				30:1	

BVebo	Emitter to Base Breakdown	Ie = 5 mA	4.0			Volts
BVces	Collector to Emitter Breakdown	Ic = 50 mA	55			Volts
BVceo	Collector to Emitter Breakdown	Ie = 50 mA	30			Volts
Cob	Output Capacitance	Vcb = 28 V, F = 1 MHz		11.5		pF
h_{FE}	DC - Current Gain	Vce = 5 V, Ic = 200 mA	10			
θ_{jc}	Thermal Resistance				6.3	°C/W

Rev. A : August 2005



DIM	MILLIMETER	±TOL	INCHES	±TOL
A	26.16	.38	1.030	.015
B	45°	5°	45°	5°
C	5.71	.13	.225	.005
D	7.11 DIA	.13	.280 DIA	.005
E	6.35	.13	.250	.005
F	3.05	.13	.120	.005
G	2.92	.25	.115	.010
H	13.34	MAX	.525	MAX
I	3.30	.38	.130	.015
J	16.64	REF	.655	REF
K	0.13	.02	.005	.01