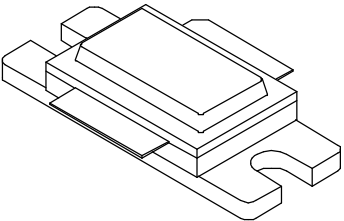




TAN 350

350 Watts, 50 Volts, Pulsed
Avionics 960 – 1215 MHz

<p>GENERAL DESCRIPTION</p> <p>The TAN350 is a high power COMMON BASE bipolar transistor. It is designed for pulsed systems in the frequency band 960-1215 MHz. The device has gold thin-film metallization and diffused ballasting for proven highest MTF. The transistor includes input and output prematch for broadband capability. Low thermal resistance package reduces junction temperature, extends life.</p>	<p>CASE OUTLINE 55ST Style 1</p> 
<p>ABSOLUTE MAXIMUM RATINGS</p> <p>Power Dissipation Device Dissipation @25°C (P_d) 1450 W (At rated pulse condition)</p> <p>Voltage and Current Collector to Base Voltage (BV_{ces}) 65 V Emitter to Base Voltage (BV_{ebo}) 2.0 V Collector Current (I_c) 40 A</p> <p>Temperatures Storage Temperature -65 to +200 °C Operating Junction Temperature +230 °C</p>	

ELECTRICAL CHARACTERISTICS @ 25°C

SYMBOL	CHARACTERISTICS	TEST CONDITIONS	MIN	TYP	MAX	UNITS
P _{out}	Power Out	F = 960 – 1215 MHz	350			W
P _{in}	Power Input	V _{CC} = 50 Volts			70	W
P _g	Power Gain	PW = 10 μsec	7.0	7.5		dB
η _c	Collector Efficiency	DF = 10%	38	40		%
VSWR	Load Mismatch Tolerance	F = 1090 MHz	3:1			

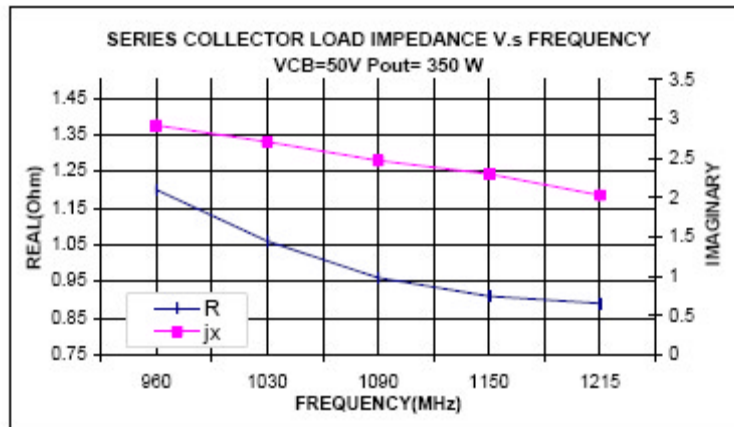
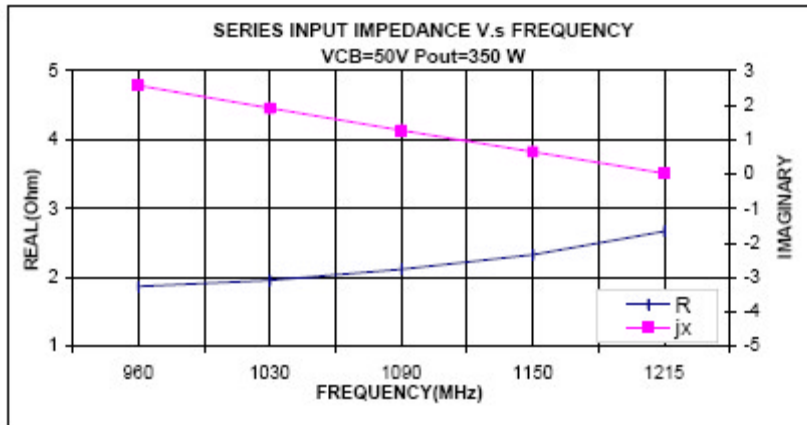
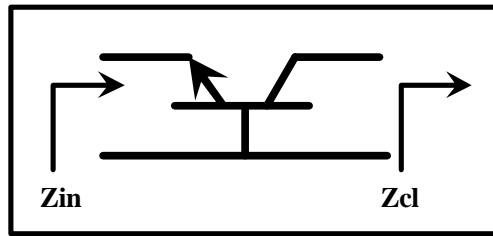
FUNCTIONAL CHARACTERISTICS @ 25°C

BV _{ebo}	Emitter to Base Breakdown	I _e = 25 mA	2.0			V
BV _{ces}	Collector to Emitter Breakdown	I _c = 50 mA	65			V
h _{FE}	DC – Current Gain	I _c = 1A, V _{ce} = 5V	10			
θ _{jc} ²	Thermal Resistance			.12		°C/W

Rev A - Sept. 2005

TAN350

Frequency	Zin		ZCL	
	R	jx	R	jx
960	1.87	2.58	1.2	2.92
1030	1.96	1.92	1.06	2.71
1090	2.12	1.27	0.96	2.47
1150	2.33	0.65	0.91	2.3
1215	2.67	0.03	0.89	2.03



TAN350

NOTES, UNLESS OTHERWISE SPECIFIED:

- ONLY THE ITEM DESCRIBED ON THIS DRAWING WHEN PRODUCED FROM THE "APPROVED SUPPLIER LIST" IS APPROVED FOR USE IN THE APPLICATION SPECIFIED HEREON. A SUBSTITUTE ITEM SHALL NOT BE USED WITHOUT PRIOR TESTING AND APPROVAL BY SHZ.

DIM	INCHES	DIM	INCHES
a	.0233	n	.175
b	.323	o	.450
c	.127	p	.080
d	.125	q	.384
e	.278	r	.030
f	.247	s	.177
g	.345	t	.507
h	.5417	u	.215
i	.253	v	.100
j	1.210	w	.037
k	.370	x	.435
l	.084	y	.070
m	.152	z	2.000

REF: GT #22446, 2000th Dia
 C1 = 47µF 91P MTC B
 C2 = 1000µF 10V Electrolytic
 C3 = 0.01µF MTC A
 C4-C5 = 0-3.50T Johnson Urminar capacitors
 Vcc = 50 V.

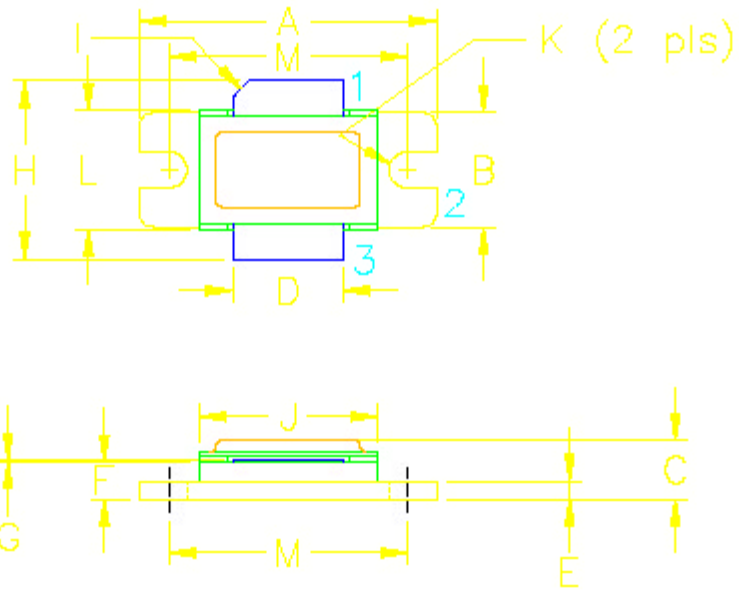
REV	DATE	BY	CHKD	APP'D
1	07/05	OPJR2		

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 3000 QUAKER VALLEY DRIVE
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TAN 350
 DEC/1997 MIL TAN 350
 SCALE: N/A FILE: TAN 350 SHEET: 4 OF 5

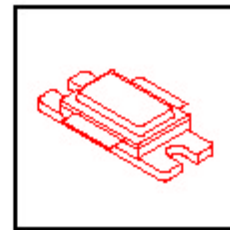
TAN350



DIM	MILLIMETER	±TOL	INCHES	±TOL
A	25.40	.25	1.000	.010
B	9.78	.25	.385	.010
C	4.00	.19	.142	.007
D	9.40	.13	.370	.005
E	1.53	.13	.060	.005
F	3.18	.13	.125	.005
G	0.08	+06/-20	.003	+002/-000
H	19.05	0.51	.750	.020
I	45°	5°	45°	5°
J	15.24	.25	.600	.010
K	3.05 DIA	.13	.120 DIA	.005
L	10.15	.13	.400	.005
M	20.32	.25	.800	.010

STYLE 1:
 PIN 1 = COLLECTOR
 2 = BASE
 3 = EMITTER

STYLE 2:
 PIN 1 = COLLECTOR
 2 = EMITTER
 3 = BASE



DWG NO.

55ST