

PH3135-5S Datasheet

www.digi-electronics.com



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	PH3135-5S-DG
Manufacturer	MACOM Technology Solutions
Manufacturer Product Number	PH3135-5S
Description	RF TRANS NPN 60V
Detailed Description	RF Transistor NPN 60V 750mA 5W



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.

Purchase and inquiry

Manufacturer Product Number:

PH3135-5S

Series:

-

Transistor Type:

NPN

Frequency - Transition:

-

Gain:

8.5dB

DC Current Gain (hFE) (Min) @ Ic, Vce:

-

Operating Temperature:

200°C (Tj)

Package / Case:

-

Base Product Number:

PH3135

Manufacturer:

MACOM Technology Solutions

Product Status:

Active

Voltage - Collector Emitter Breakdown (Max):

60V

Noise Figure (dB Typ @ f):

-

Power - Max:

5W

Current - Collector (Ic) (Max):

750mA

Mounting Type:

-

Supplier Device Package:

-

Environmental & Export classification

RoHS Status:

ROHS3 Compliant

ECCN:

EAR99

Moisture Sensitivity Level (MSL):

1 (Unlimited)

HTSUS:

8541.29.0095

PH3135-5S



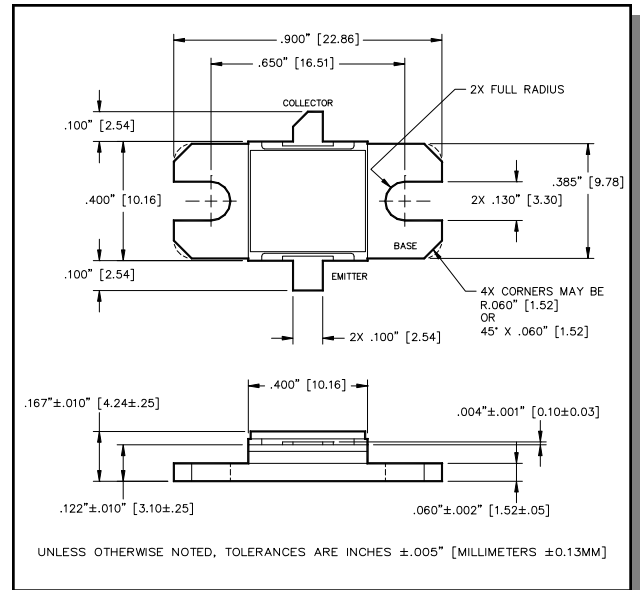
Radar Pulsed Power Transistor
5W, 3.1-3.5 GHz, 2 μ s Pulse, 10% Duty

M/A-COM Products
Released, 10 Aug 07

Features

- NPN silicon microwave power transistors
- Common base configuration
- Broadband Class C operation
- High efficiency inter-digitized geometry
- Diffused emitter ballasting resistors
- Gold metallization system
- Internal input and output impedance matching
- Hermetic metal/ceramic package
- RoHS compliant

Outline Drawing



Absolute Maximum Ratings at 25°C

Parameter	Symbol	Rating	Units
Collector-Emitter Voltage	V_{CES}	60	V
Emitter-Base Voltage	V_{EBO}	3.0	V
Collector Current (Peak)	I_C	0.75	A
Power Dissipation @ +25°C	P_{TOT}	60	W
Storage Temperature	T_{STG}	-65 to +200	°C
Junction Temperature	T_J	200	°C

Electrical Specifications: $T_C = 25 \pm 5^\circ\text{C}$ (Room Ambient)

Parameter	Test Conditions	Frequency	Symbol	Min	Max	Units
Collector-Emitter Breakdown Voltage	$I_C = 10\text{mA}$		BV_{CES}	60	-	V
Collector-Emitter Leakage Current	$V_{CE} = 40\text{V}$		I_{CES}	-	1.0	mA
Thermal Resistance	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	$R_{TH(JC)}$	-	3.5	°C/W
Output Power	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	P_{OUT}	5.0	-	W
Power Gain	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	G_P	8.5	-	dB
Collector Efficiency	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	η_C	30	-	%
Input Return Loss	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	RL	-	-6	dB
Load Mismatch Tolerance	$V_{CC} = 33\text{V}$, $P_{in} = 0.7\text{W}$	$F = 3.1, 3.3, 3.5\text{ GHz}$	VSWR-T	-	2:1	-

PH3135-5S

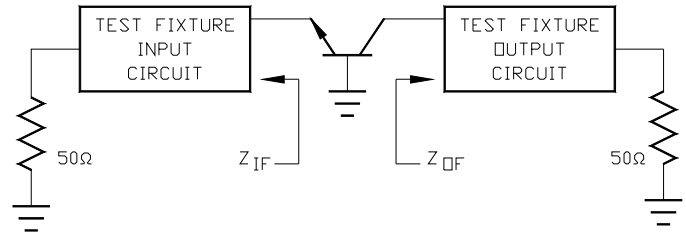


Radar Pulsed Power Transistor
5W, 3.1-3.5 GHz, 2μs Pulse, 10% Duty

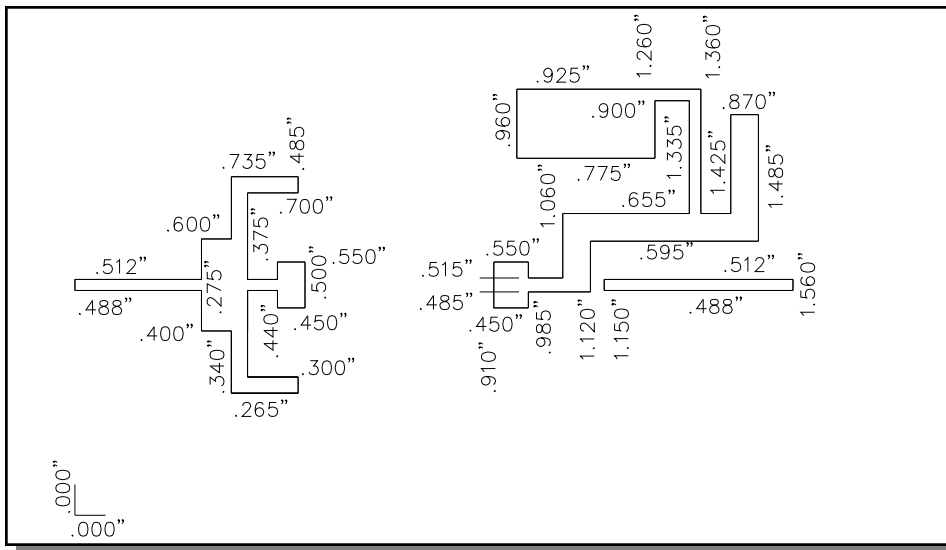
M/A-COM Products
Released, 10 Aug 07

RF Test Fixture Impedance

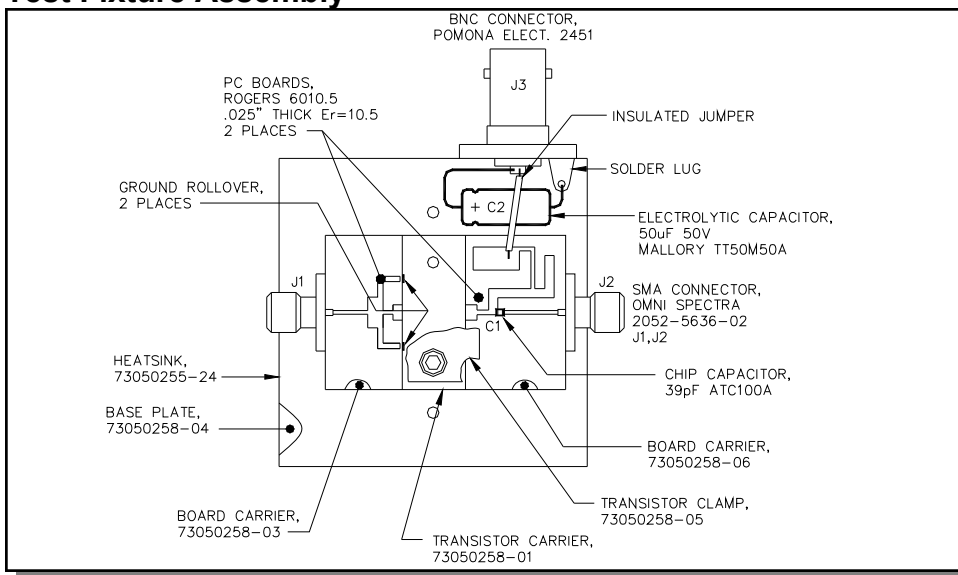
F (GHz)	Z _{IF} (Ω)	Z _{OF} (Ω)
3.1	24 - j4.4	24 - j20
3.3	20 - j0.7	18 - j11
3.5	17 + j3.9	15 - j3.0



Test Fixture Circuit Dimensions



Test Fixture Assembly



ADVANCED: Data Sheets contain information regarding a product M/A-COM Technology Solutions is considering for development. Performance is based on target specifications, simulated results, and/or prototype measurements. Commitment to develop is not guaranteed.
PRELIMINARY: Data Sheets contain information regarding a product M/A-COM Technology Solutions has under development. Performance is based on engineering tests. Specifications are typical. Mechanical outline has been fixed. Engineering samples and/or test data may be available. Commitment to produce in volume is not guaranteed.

- **North America** Tel: 800.366.2266 / Fax: 978.366.2266
 - **Europe** Tel: 44.1908.574.200 / Fax: 44.1908.574.300
 - **Asia/Pacific** Tel: 81.44.844.8296 / Fax: 81.44.844.8298
- Visit www.macomtech.com for additional data sheets and product information.

M/A-COM Technology Solutions Inc. and its affiliates reserve the right to make changes to the product(s) or information contained herein without notice.

OUR CERTIFICATE

DiGi provide top-quality products and perfect service for customer worldwide through standardization, technological innovation and continuous improvement. DiGi through third-party certification, we strictly control the quality of products and services. Welcome your RFQ to

Email: Info@DiGi-Electronics.com



Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

DiGi is a global authorized distributor of electronic components.