

**Fax-on-Demand:** 86-22-24207687 / 25-471-1126

**Tel-on-Demand:** 86-22-24207688 / 25-471-1136

Before ordering check with  
factory for most current data

**672-1175M**

**RF & MICROWAVE TRANSISTORS  
AVIONICS APPLICATIONS**

## Features

1025 – 1150 MHz

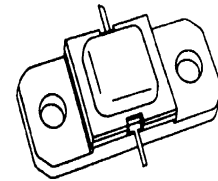
50 VOLTS

INTERNAL INPUT/OUTPUT MATCHING

$P_{OUT} = 175$  WATTS

$G_P = 7.7$  dB MINIMUM

COMMON BASE CONFIGURATION

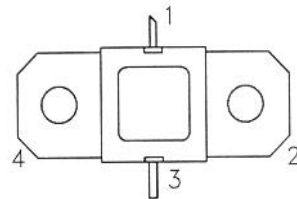


400 x .400 2NLFL (M218)  
hermetically sealed

## DESCRIPTION:

The 672-1175M is a NPN bipolar transistor specifically designed for high peak pulse power applications such as DME/TACAN. This device is capable of withstanding a minimum 20:1 load VSWR at any phase angle under full rated conditions. Internal impedance matching provides consistent broadband performance.

PIN CONNECTION



1. Collector      3. Emitter  
2. Base          4. Base

## ABSOLUTE MAXIMUM RATINGS (T<sub>case</sub> = 25°C)

Symbol	Parameter	Value	Unit
$P_{DISS}$	Power Dissipation	400	W
$I_C$	Device Current	12	A
$V_{CC}$	Collector-Supply Voltage*	55	V
$T_J$	Junction Temperature	200	°C
$T_{STG}$	Storage Temperature	-65 to +200	°C

## Thermal Data

$R_{TH(J-C)}$	Thermal Resistance Junction-case	0.3	°C/W
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## ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)

### STATIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
BV <sub>CBO</sub>	I <sub>C</sub> = 10 mA	I <sub>E</sub> = 0 mA	65	---	---	V	
BV <sub>EBO</sub>	I <sub>E</sub> = 1 mA	I <sub>C</sub> = 0 mA	3.5	---	---	V	
BV <sub>CER</sub>	I <sub>C</sub> = 15 mA	R <sub>BE</sub> = 10 Ω	65	---	---	V	
I <sub>CES</sub>	V <sub>CE</sub> = 50 V		---	---	12.5	mA	
HFE	V <sub>CE</sub> = 5 V	I <sub>C</sub> = 1 A	15	---	120	---	

### DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P <sub>OUT</sub>	f = 1025 - 1150 MHz	P <sub>IN</sub> = 30 W	V <sub>CC</sub> = 50 V	175	---	---	W
η <sub>C</sub>	f = 1025 - 1150 MHz	P <sub>IN</sub> = 30 W	V <sub>CC</sub> = 50 V	40	---	---	%
G <sub>p</sub>	f = 1025 - 1150 MHz	P <sub>IN</sub> = 30 W	V <sub>CC</sub> = 50 V	7.7	---	---	dB
Condition	Pulse Width = 10uS Duty Cycle = 1%						

### IMPEDANCE DATA

FREQ	Z <sub>IN</sub> (Ω)	Z <sub>CL</sub> (Ω)
1025 MHz	2.3 + j5.1	2.4 - j4.2
1090 MHz	2.0 + j4.5	2.0 - j3.5
1150 MHz	2.2 + j3.3	2.5 - j2.5

V<sub>CC</sub> = 50V

P<sub>IN</sub> = 30W

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## PACKAGE MECHANICAL DATA

