Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!

Contact us

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ADVANCED POWER TECHNOLOGY RF®

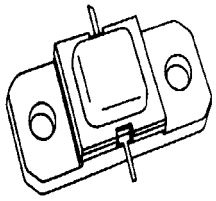
140 COMMERCE DRIVE
MONTGOMERYVILLE, PA
18936-1013
PHONE: (215) 631-9840
FAX: (215) 631-9855

MS2554

RF & MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS

Features

- **1025 – 1150 MHz**
- **50 VOLTS**
- **INPUT/OUTPUT MATCHING**
- **P_{OUT} = 250 WATTS**
- **G_P = 6.2 dB MINIMUM**
- **COMMON BASE CONFIGURATION**

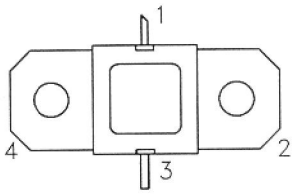


.400 x .400 2NLFL (M218)
hermetically sealed

DESCRIPTION:

The MS2554 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
2. Base
3. Emitter
4. Base

ABSOLUTE MAXIMUM RATINGS **(Tcase = 25°C)**

Symbol	Parameter	Value	Unit
P_{DISS}	Power Dissipation	600	W
I_C	Device Current	17.8	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	0.20	°C/W

ADVANCED POWER TECHNOLOGY RF®

MS2554

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			
			Min.	Typ.	Max.	Unit
BV_{CBO}	I_C = 15 mA	I_E = 0 mA	65	---	---	V
BV_{EBO}	I_E = 1 mA	I_C = 0 mA	3.5	---	---	V
BV_{CER}	I_C = 50 mA	R_{BE} = 10 Ω	65	---	---	V
I_{CES}	V_{CE} = 50 V		---	---	25	mA
HFE	V_{CE} = 5 V	I_C = 1 A	15	---	120	---

DYNAMIC

Symbol	Test Conditions			Value			
				Min.	Typ.	Max.	Unit
P_{OUT}	f = 1025 - 1150 MHz	P_{IN} = 90 W	V_{CC} = 50 V	250	---	---	W
η_C	f = 1025 - 1150 MHz	P_{IN} = 90 W	V_{CC} = 50 V	40	---	---	%
G_P	f = 1025 - 1150 MHz	P_{IN} = 90 W	V_{CC} = 50 V	6.2	---	---	dB
Condition	Pulse Width = 10uS	Duty Cycle = 1%					

IMPEDANCE DATA

FREQ	Z_{IN} (Ω)	Z_{CL} (Ω)
1025 MHz	4.2 + j6.7	2.0 - j7.5
1090 MHz	4.0 + j3.5	2.5 - j7.5
1150 MHz	2.3 + j2.3	2.5 - j8.5

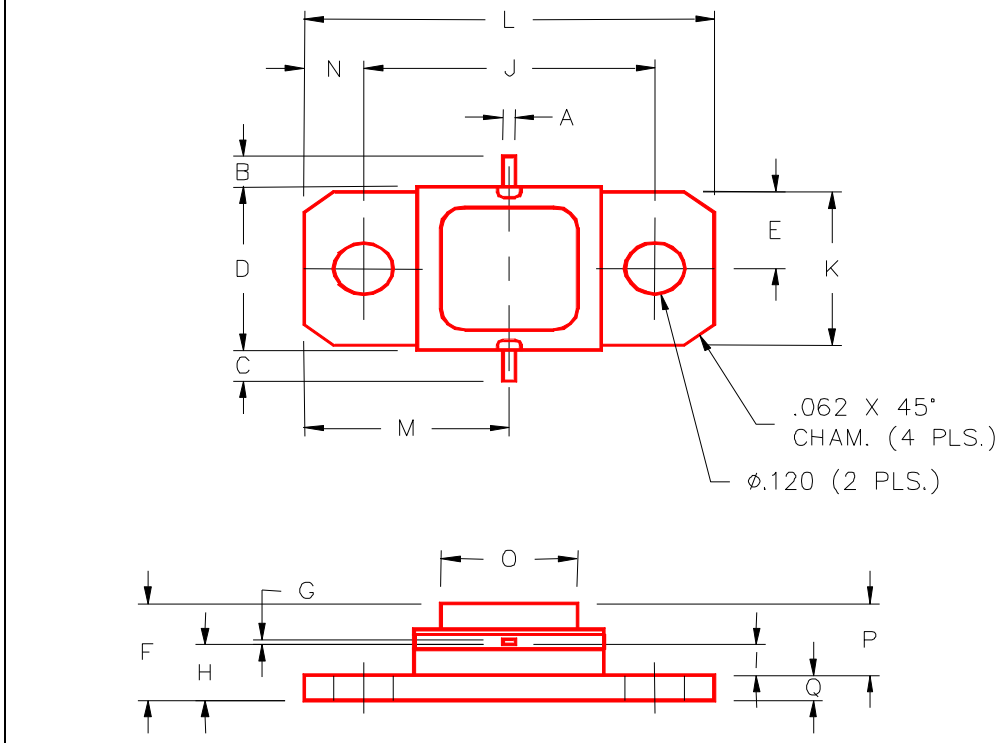
V_{CC} = 50V
P_{IN} = 60W

ADVANCED POWER TECHNOLOGY RF®

MS2554

PACKAGE MECHANICAL DATA

PACKAGE STYLE M218



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.025/0,64		J	.650/16,51	
B	.100/2,54		K	.386/9,80	
C	.100/2,54		L	.900/22.86	
D	.395/10,03	.407/10,34	M	.450/11,43	
E	.193/4,90		N	.125/3,18	
F		.230/5,84	O	.405/10,29	
G	.004/0,10	.007/0,18	P		.170/4,32
H	.118/3,00	.131/3,33	Q	.062/1,58	
I	.063/1,60				