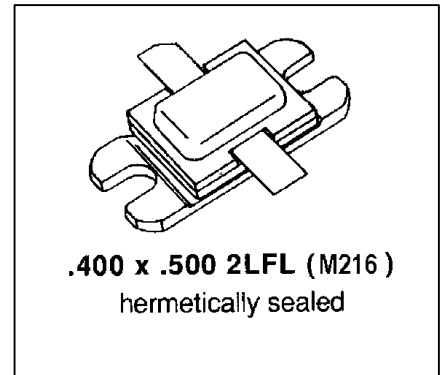


MS2475

**RF & MICROWAVE TRANSISTORS
AVIONICS APPLICATIONS**

Features

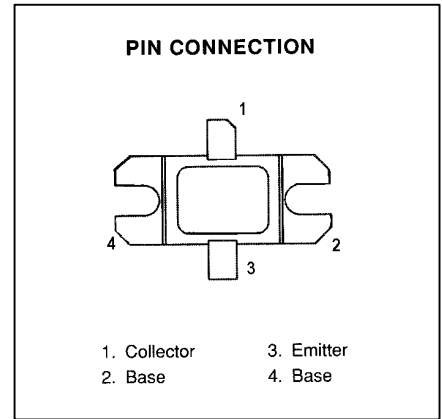
- 1030 MHz
- COMMON BASE
- 30:1 LOAD VSWR CAPABILITY AT SPECIFIED LOAD
- CLASS C OPERATION
- POUT = 750W MIN.
- INTERNAL INPUT MATCH CONFIGURATION
- GOLD METALLIZATION



DESCRIPTION:

THE MS2475 IS A SILICON NPN BIPOLAR DEVICE SPECIFICALLY DESIGNED FOR HIGH PEAK PULSED POWER APPLICATIONS SUCH AS IFF AT 1030 MHz.

GOLD METALLIZATION AND EMITTER BALLASTING ASSURE HIGH RELIABILITY OPERATION UNDER CLASS C PULSED POWER AMPLIFIER OPERATION.



ASOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	65	V
V _{CES}	Collector-Emitter Voltage	65	V
V _{EBO}	Emitter-Base Voltage	3.5	V
I _C	Device Current	40	A
P _{DISS}	Power Dissipation	1350	W
T _J	Junction Temperature	+200	°C
T _{STG}	Storage Temperature	-65 to +150	°C

Thermal Data

R _{TH(J-C)}	Junction-case Thermal Resistance*	0.06	°C/W
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*Applies only to rated RF Amplifier Operation

ELECTRICAL SPECIFICATIONS (T_{case} = 25°C)
STATIC

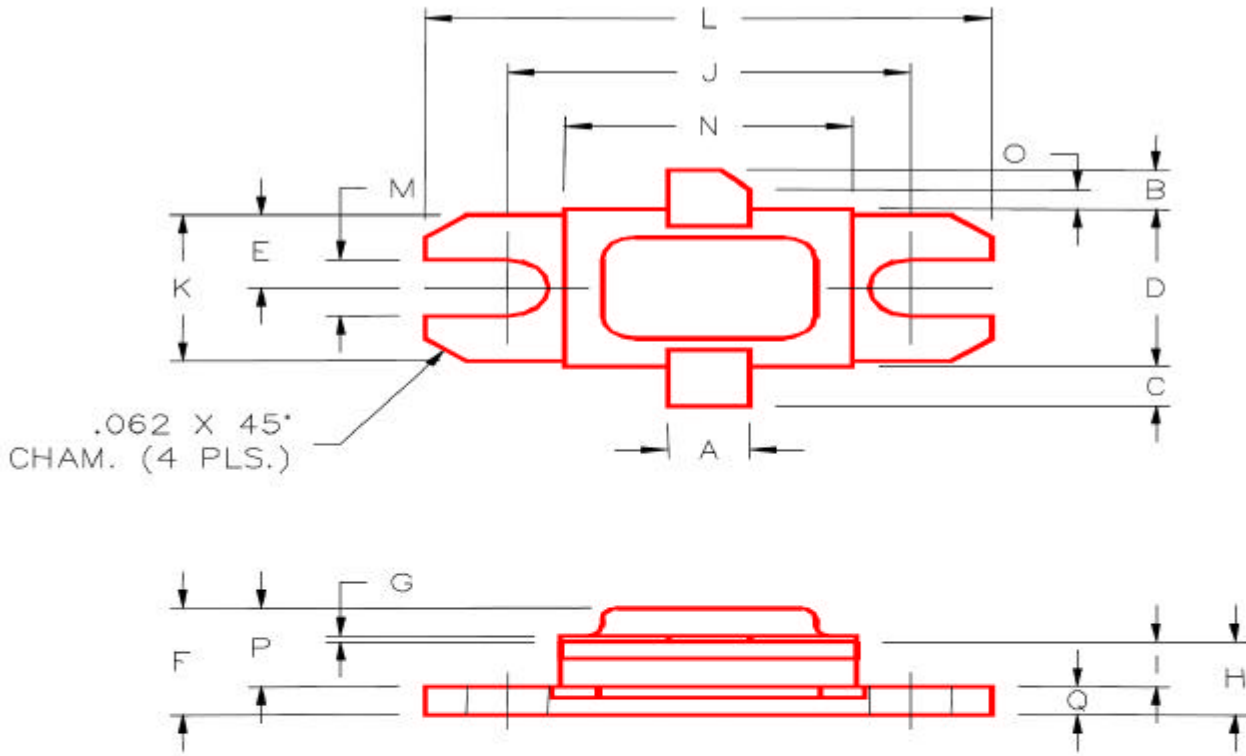
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	I_C = 35mA	I_E = 0mA	65	---	---	V
BV_{CES}	I_E = 20mA	I_B = 0mA	3.524	---	---	V
BV_{EBO}		I_C = 50mA	65	---	---	V
I_{CES}	V_{CB} = 52 V		-----	---	35	mA
h_{FE}	V_{CE} = 5 V	I_C = 2A	12.5	---	200	---

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	f = 1030 MHz	V_{CE} = 52V	P_{IN} = 150W	750	---	---	W
η_C	f = 1030MHz	V_{CC} = 52	P_{IN} = 150W	35			%
Droop	f = 1030MHz	V_{CC} = 52	P_{CC} = 150W @ 25°C	---	---	1	dB

Pulse Width = 10 μs Duty Cycle = 1 %

PACKAGE MECHANICAL DATA
PACKAGE STYLE M216



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.140/3,56		J	.700/17,78	
B	.110/2,80		K	.386/9,80	
C	.110/2,80		L	.900/22,86	
D	.395/10,03	.407/10,34	M	.120/3,05	
E	.193/4,90		N	.500/12,70	
F		.230/5,84	O	.050/1,27	
G	.003/0,08	.006/0,15	P		.170/4,32
H	.118/3,00	.131/3,33	Q	.062/1,58	
I	.063/1,60				