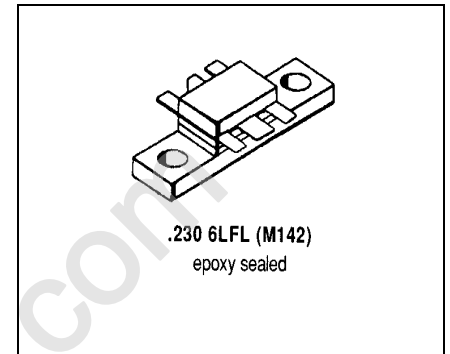
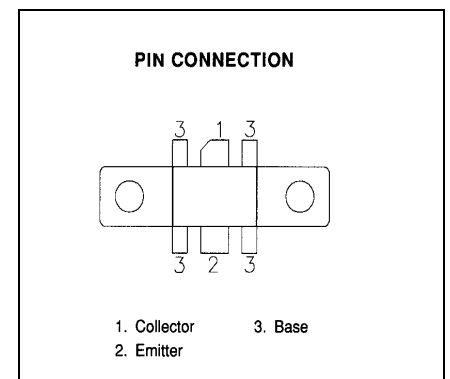


**SD1495-03**
**RF & MICROWAVE TRANSISTORS  
800 / 900 MHz APPLICATIONS**
**Features**

- 960 MHz
- 24 VOLTS
- $P_{OUT} = 30$  WATTS
- $G_p = 7.0$  dB MINIMUM
- IMPUT MATCHING
- COMMON BASE CONFIGURATION


**DESCRIPTION:**

The SD1495-03 is a silicon NPN transistor designed for 900 - 960 MHz base station applications. Gold metalization and internal impedance matching provide superior reliability and consistent broad band performance.


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

Symbol	Parameter	Value	Unit
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{CES}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	4.0	V
$I_C$	Device Current	9.0	A
$P_{DISS}$	Power Dissipation	100	W
$T_J$	Junction Temperature	+200	°C
$T_{STG}$	Storage Temperature	-65 to + 150	°C

**Thermal Data**

$R_{TH(J-C)}$	Thermal Resistance Junction-case	1.5	°C/W
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**ELECTRICAL SPECIFICATIONS (T<sub>case</sub> = 25°C)**
**STATIC**

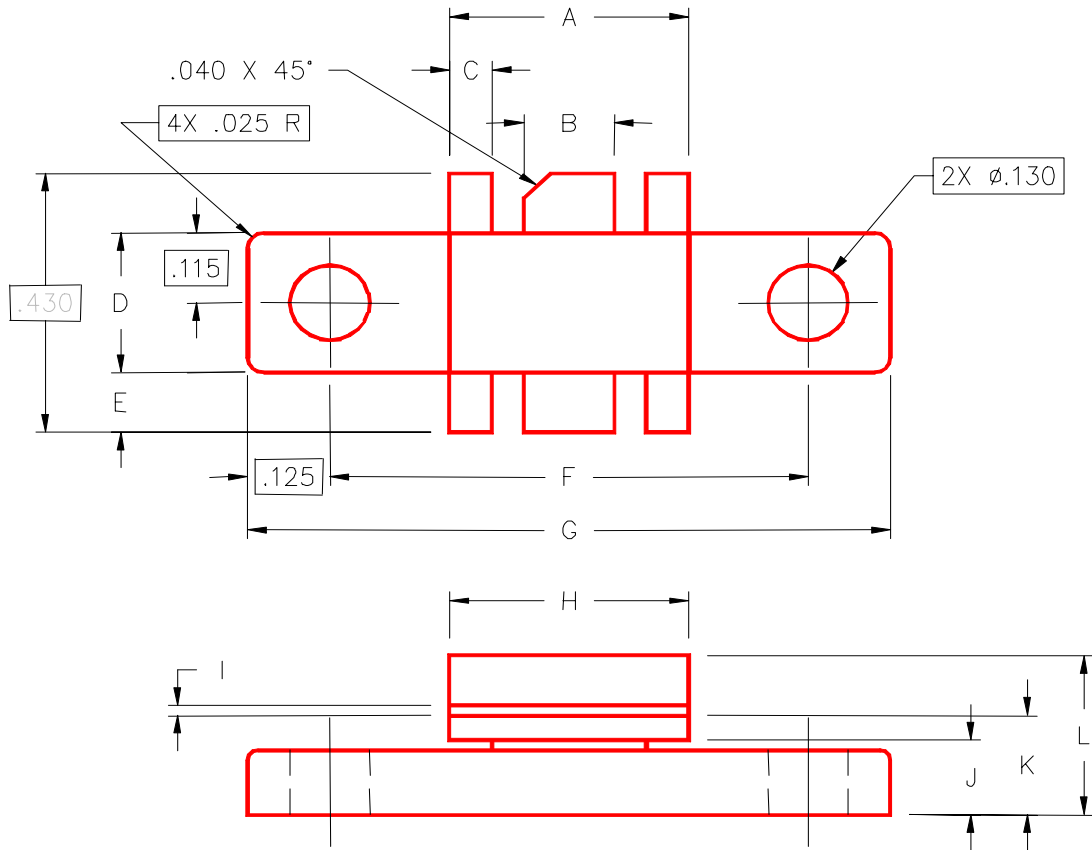
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
<b>BV<sub>CES</sub></b>	<b>I<sub>C</sub> = 50mA</b>	<b>V<sub>BE</sub> = 0V</b>	<b>50</b>	---	---	<b>V</b>
<b>BV<sub>CEO</sub></b>	<b>I<sub>C</sub> = 50mA</b>	<b>I<sub>B</sub> = 0mA</b>	<b>30</b>	---	---	<b>V</b>
<b>BV<sub>EBO</sub></b>	<b>I<sub>E</sub> = 10mA</b>	<b>I<sub>C</sub> = 0mA</b>	<b>4.0</b>	---	---	<b>V</b>
<b>I<sub>CBO</sub></b>	<b>V<sub>CB</sub> = 15V</b>	<b>I<sub>E</sub> = 0mA</b>	---	---	<b>5</b>	<b>mA</b>
<b>HFE</b>	<b>V<sub>CE</sub> = 5V</b>	<b>I<sub>C</sub> = 1A</b>	<b>10</b>	---	<b>120</b>	---

**DYNAMIC**

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
<b>P<sub>OUT</sub></b>	<b>f = 960MHz</b>	<b>P<sub>IN</sub> = 6.0W</b>	<b>V<sub>CE</sub> = 24V</b>	<b>30</b>	---	---	<b>W</b>
<b>G<sub>P</sub></b>	<b>f = 960MHz</b>	<b>P<sub>IN</sub> = 6.0W</b>	<b>V<sub>CE</sub> = 24V</b>	<b>7.0</b>	---	---	<b>dB</b>
<b>η<sub>C</sub></b>	<b>f = 960MHz</b>	<b>P<sub>IN</sub> = 6.0W</b>	<b>V<sub>CE</sub> = 24V</b>	<b>50</b>	---	---	<b>%</b>
<b>C<sub>OB</sub></b>	<b>f = 1 MHz</b>	<b>V<sub>CB</sub> = 24V</b>		---	---	<b>55</b>	<b>pf</b>

**PACKAGE MECHANICAL DATA**

PACKAGE STYLE M142



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.355/9,02	.365/9,27	I	.004/0,10	.006/0,15
B	.115/2,92	.125/3,18	J	.120/3,05	.130/3,30
C	.075/1,91	.085/2,16	K	.160/4,06	.180/4,57
D	.225/5,72	.235/5,97	L	.230/5,84	.260/6,60
E	.090/2,29	.110/2,79			
F	.720/18,29	.730/18,54			
G	.970/24,64	.980/24,89			
H	.355/9,02	.365/9,27			