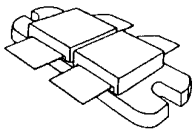
SD1485

RF & MICROWAVE TRANSISTORS
TV/LINEAR APPLICATIONS



2 x .437 x .450 2LFL (M175)
epoxy sealed

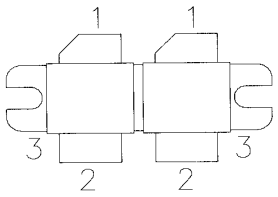
Features

- 170 - 230 MHz
- 32 VOLTS
- P_{OUT} = 200 WATTS
- G_P = 11.0 dB GAIN MINIMUM
- INTERNAL INPUT MATCHING
- COMMON EMITTER CONFIGURATION

DESCRIPTION:

The SD1485 is a gold metallized epitaxial silicon NPN planar transistor using diffused emitter ballast resistors for high linearity Class AB operation in VHF and Band III television transmitters and transposers.

PIN CONNECTION



1. Collector
2. Base
3. Emitter

ABSOLUTE MAXIMUM RATINGS (Tcase = 25°C)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	65	V
V_{CEO}	Collector-Emitter Voltage	35	V
V_{EBO}	Emitter-Base Voltage	3.0	V
I_C	Device Current	25	A
P_{DISS}	Power Dissipation	385	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	0.45	°C/W

Advanced Power Technology reserves the right to change, without notice, the specifications and information contained herein
Visit our website at **WWW.ADVANCEDPOWER.COM** or contact our factory direct.

ELECTRICAL SPECIFICATIONS (Tcase = 25°C)

STATIC

Symbol	Test Conditions		Value			
			Min.	Typ.	Max.	Unit
BV_{CBO}	I_C = 100 mA	I_E = 0 mA	65	---	---	V
BV_{CER}	I_C = 100 mA	R_{BE} = 15 Ω	60	---	---	V
BV_{CEO}	I_C = 100 mA	I_B = 0 mA	35	---	---	V
BV_{EBO}	I_E = 20 mA	I_C = 0 mA	3.0	---	---	V
I_{CES}	V_{CE} = 32 V	I_E = 0 mA	---	---	10	mA
HFE	V_{CE} = 5 V	I_C = 4 A	20	---	70	---

DYNAMIC

Symbol	Test Conditions			Value			
				Min.	Typ.	Max.	Unit
P_{OUT}	f = 230 MHz	V_{CE} = 32 V	I_{CQ} = 2 x 500 mA	200	---	---	W
G_P	f = 230 MHz	V_{CE} = 32 V	I_{CQ} = 2 x 500 mA	11	---	---	dB
η_C	f = 230 MHz	V_{CE} = 32 V	I_{CQ} = 2 x 500 mA	50	---	---	%
C_{OB}	f = 1 MHz	V_{CB} = 28 V		---	---	190	pF

IMPEDANCE DATA

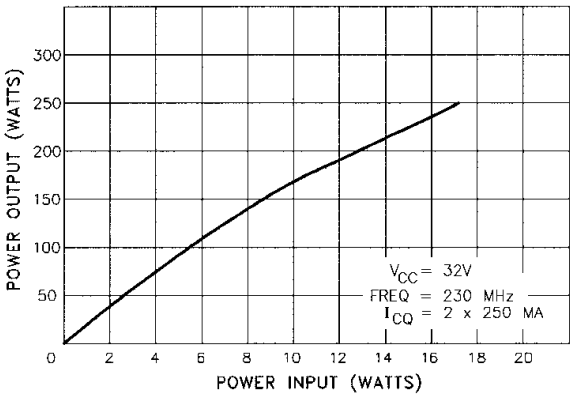
FREQ	$Z_{IN}(\Omega)$	$Z_{CL}(\Omega)$
170 MHz	2.7 + j1.0	3.7 + j3.0
200 MHz	2.1 + j1.5	3.4 + j3.7
230 MHz	1.4 + j2.2	3.0 + j4.1

P_{OUT} = 200W
V_{CC} = 32V

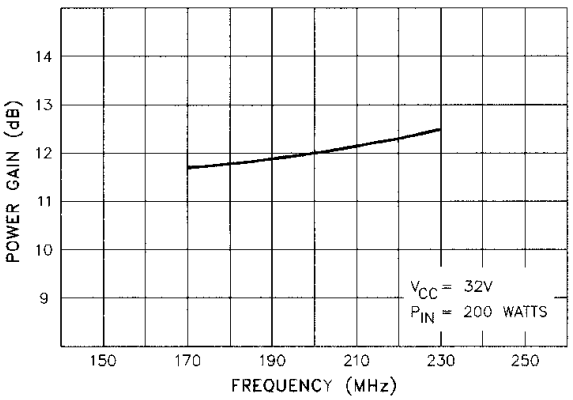
Advanced Power Technology reserves the right to change, without notice, the specifications and information contained herein
Visit our website at **WWW.ADVANCEDPOWER.COM** or contact our factory direct.

TYPICAL PERFORMANCE

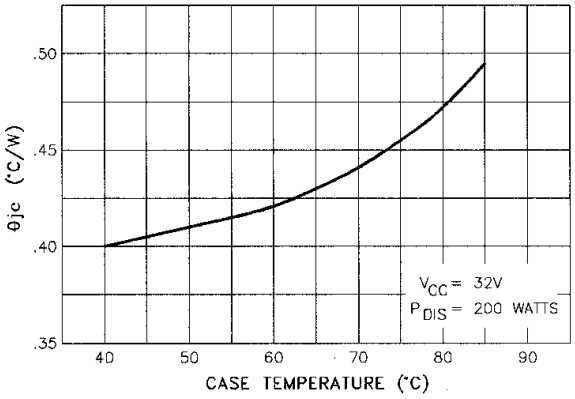
POWER OUTPUT vs POWER INPUT



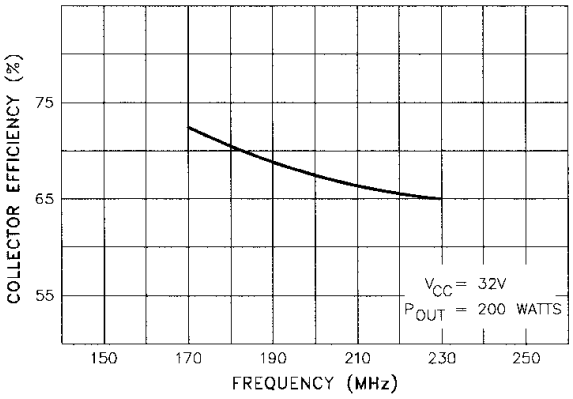
BRAODBAND POWER GAIN vs FREQUENCY



THERMAL RESISTANCE vs CASE TEMPERATURE



COLLECTOR EFFICIENCY vs FREQUENCY



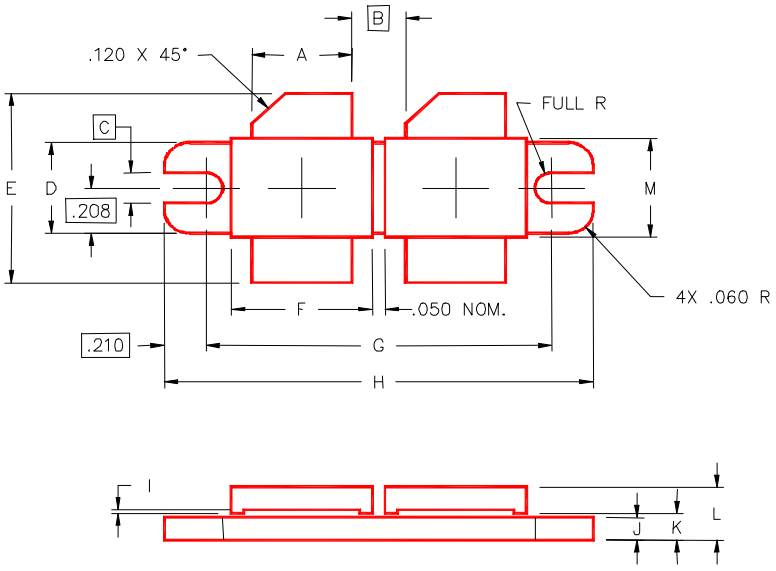
Advanced Power Technology reserves the right to change, without notice, the specifications and information contained herein
Visit our website at **WWW.ADVANCEDPOWER.COM** or contact our factory direct.

ADVANCED POWER TECHNOLOGY RF®

SD1485

PACKAGE MECHANICAL DATA

PACKAGE STYLE M175



	MINIMUM INCHES/MM	MAXIMUM INCHES/MM		MINIMUM INCHES/MM	MAXIMUM INCHES/MM
A	.373/9,47	.385/9,78	I	.002/0,05	.006/0,15
B	.190/4,83		J	.095/2,41	.105/2,67
C	.125/3,18		K	.115/2,92	.135/3,43
D	.411/10,44	.421/10,69	L		.250/6,35
E	.825/20,96	.865/21,97	M	.445/11,30	.455/11,56
F	.525/13,34	.535/13,59			
G	1.255/31,88	1.265/32,13			
H	1.675/42,55	1.685/42,80			

Advanced Power Technology reserves the right to change, without notice, the specifications and information contained herein
Visit our website at **WWW.ADVANCEDPOWER.COM** or contact our factory direct.