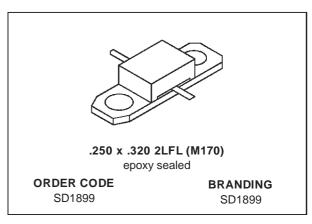


SD1899

RF & MICROWAVE TRANSISTORS SATELLITE COMMUNICATIONS APPLICATIONS

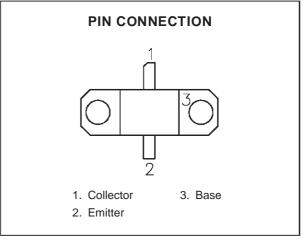
- REFRACTORY/GOLD METALLIZATION
- EFFICIENCY 50% TYPICAL
- Pout = 30 W MIN. WITH 9.3 dB GAIN





The SD1899 is a common base silicon NPN bipolar device optimized for 1.6 GHz SATCOM applications.

SD1899 offers superior gain and collector efficiency, making it an ideal choice for Class C power amplifiers used in portable as well as fixed SAT-COM terminals.



ABSOLUTE MAXIMUM RATINGS $(T_{case} = 25^{\circ}C)$

Symbol	Parameter	Value	Unit	
Vсво	Collector-Base Voltage	45	V	
Vces	CES Collector-Emitter Voltage		V	
V _{EBO}	Emitter-Base Voltage	3.0	V	
Ic	Device Current	3.5	А	
P _{DISS}	Power Dissipation (+25°C)	64.8	W	
TJ	Junction Temperature	+200	°C	
T _{STG}	Storage Temperature	- 65 to +150	°C	

THERMAL DATA

R _{TH(j-c)}	Junction-Case Thermal Resistance	2.7	°C/W
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SD1899

ELECTRICAL SPECIFICATIONS $(T_{case} = 25^{\circ}C)$

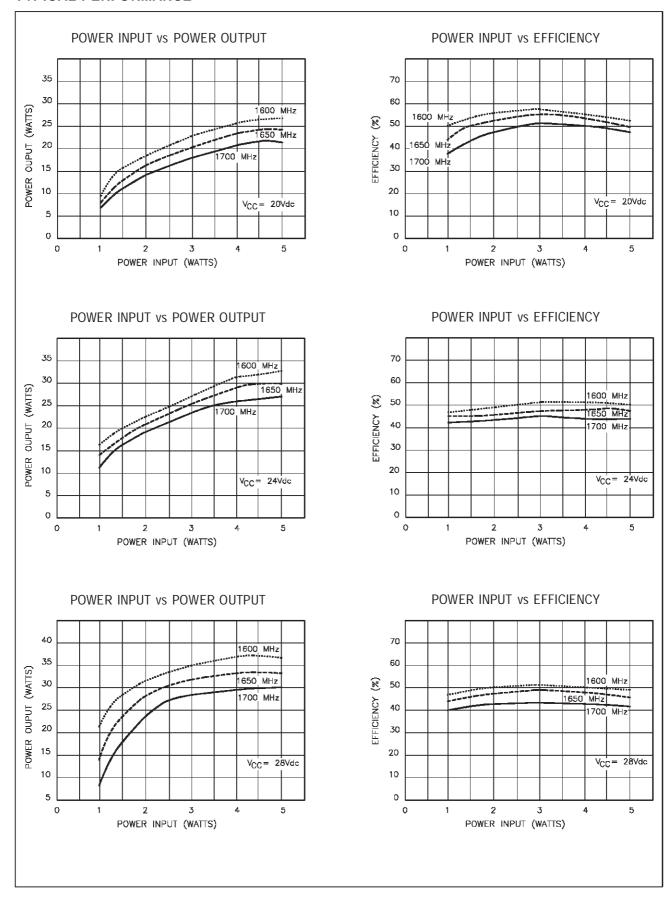
STATIC

Symbol	Test Conditions	Value			Unit		
Symbol		rest conditions		Min.	Тур.	Max.	Onit
ВУсво	IC = 8 mA	IE = 0 mA		45	_	_	V
BVces	IC = 8 mA	VBE = 0 V		45	_	_	V
BV _{EBO}	IE = 8 mA	IC = 0 mA		3.0	_	_	V
Ісво	VCB = 28 V	IE = 0 mA		_	_	2	mA
hFE	VCE = 5 V	IC = 1.6 A		15	_	150	_

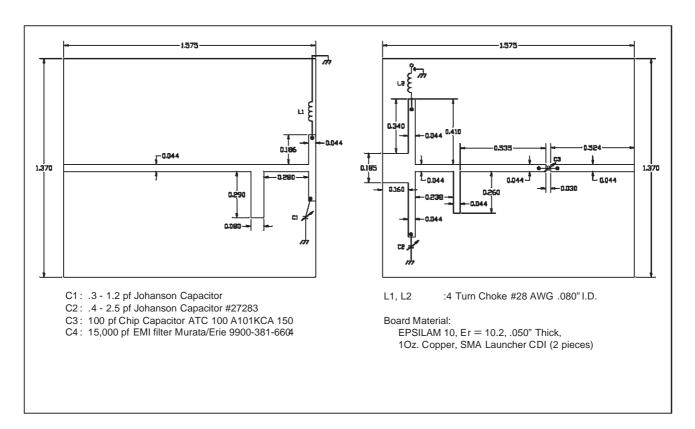
DYNAMIC

Symbol	mbol Test Conditions		Value			Unit	
Symbol		rest conditions		Min.	Тур.	Max.	Offic
Роит	f = 1650 MHz	VCC = 28 V	PIN = 3.5 W	30	32	_	W
ης	f = 1650 MHz	VCC = 28 V	PIN = 3.5 W	45	50	_	%
P _G	f = 1650 MHz	VCC = 28 V	_	9.3		_	dB

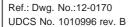
TYPICAL PERFORMANCE

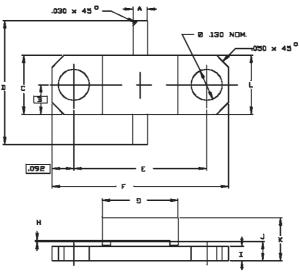


TEST CIRCUIT



PACKAGE MECHANICAL DATA





SGS-THOMSON MICROELECTRONICS			מידתם		
	MINIMUM Inches/nn	MAXIMUM Inches/mm		MINIMUM Inches/nm	MAXINUM Inches/nn
A	.055/1,40	.065/1,65	к		.190/4,83
3	.124/3,15		L	.245/6,22	.255/6,48
C	.243/6,17	.253/6,43			
ם	.635/16,13	.665/16,89			
E	.555/14,10	.565/14,35			
F	.739/18,77	.749/19,02			
G	.315/8,00	.325/8,26			
н	.002/0,05	.006/0,15			
I	.055/1,40	.065/1,65			
J	.075/1,91	.095/2,41			

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