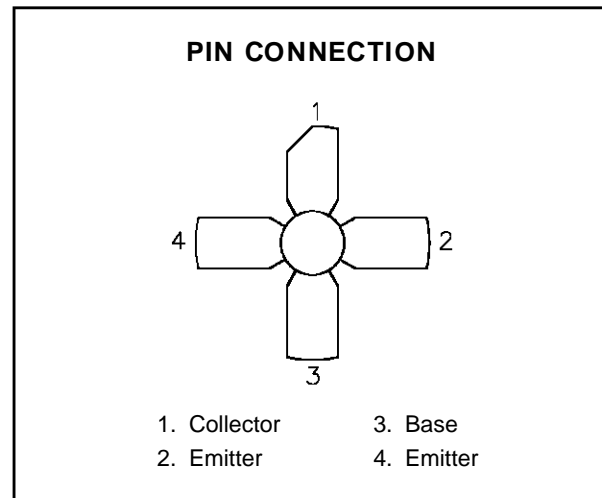
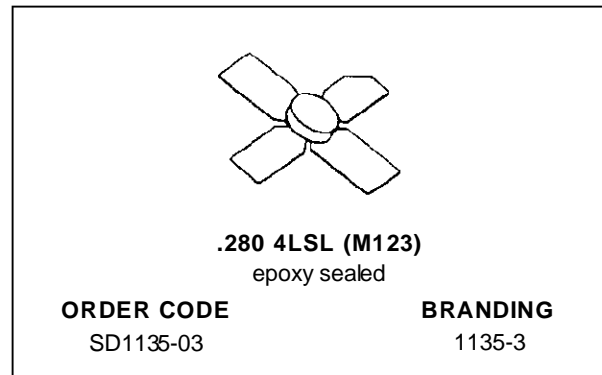


RF & MICROWAVE TRANSISTORS VHF PORTABLE/MOBILE APPLICATIONS

- 150 MHz
- 7.5 VOLTS
- COMMON EMITTER
- P_{OUT} = 2.5 W MIN. WITH 11.0 dB GAIN


DESCRIPTION

The SD1135-03 is a 7.5 V Class C epitaxial silicon NPN planar transistor designed primarily for VHF communications. It withstands severe mismatch under operating conditions.

ABSOLUTE MAXIMUM RATINGS (T_{case} = 25°C)

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage	36	V
V _{CER}	Collector-Emitter Voltage	16	V
V _{CES}	Collector-Emitter Voltage	36	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _c	Device Current	1.7	A
P _{DISS}	Power Dissipation	15	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	11.6	°C/W
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SD1135-03

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

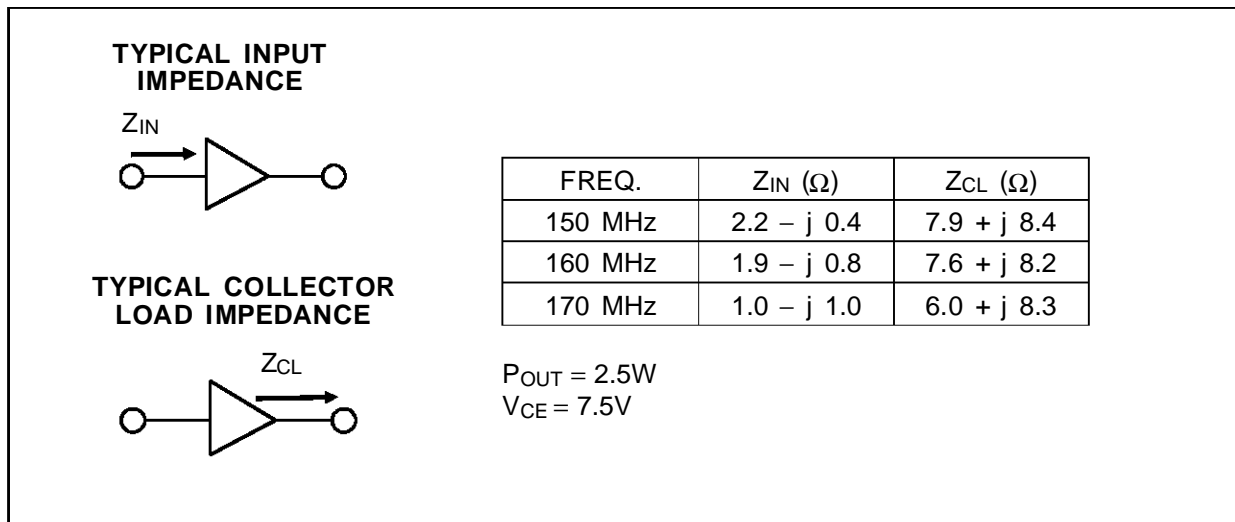
STATIC

Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CES}	$I_C = 10mA$	$V_{BE} = 0V$	36	—	—	V
BV_{CEO}	$I_C = 50mA$	$I_B = 0mA$	16	—	—	V
BV_{EBO}	$I_E = 2mA$	$I_C = 0mA$	4.0	—	—	V
I_{CER}	$V_{CE} = 10V$	$R_{BE} = 50\Omega$	—	—	0.5	mA
I_{CBO}	$V_{CB} = 15V$	$I_E = 0mA$	—	—	1.0	mA
h_{FE}	$V_{CE} = 5V$	$I_C = 200mA$	20	—	—	—

DYNAMIC

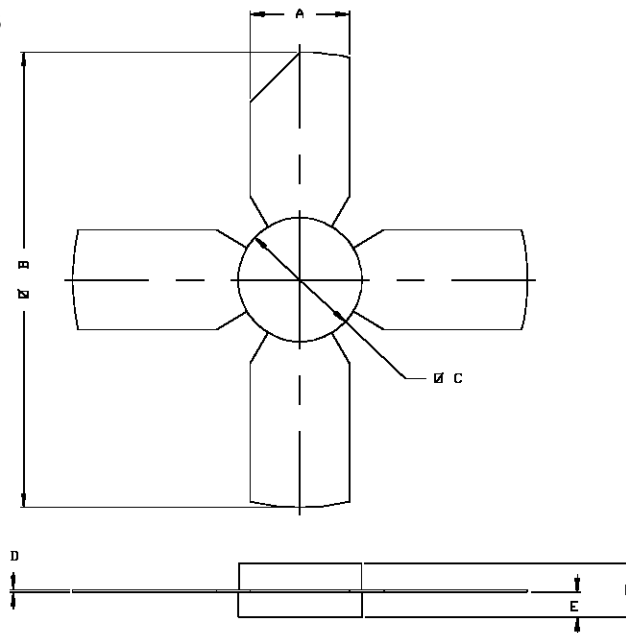
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
P_{OUT}	$f = 150\text{ MHz}$	$V_{CC} = 7.5\text{ V}$	2.5	—	—	W
G_P	$f = 150\text{ MHz}$	$V_{CC} = 7.5\text{ V}$	11.0	—	—	dB
C_{OB}	$f = 1\text{ MHz}$	$V_{CB} = 7.5\text{ V}$	—	19	—	pF

IMPEDANCE DATA



PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0123



SGS-THOMSON MICROELECTRONICS		
	MINIMUM Inches/mm	MAXIMUM Inches/mm
A	.220/5,59	.230/5,84
B	-----	1.055/26,8
C	.275/6,99	.285/7,24
D	.004/0,10	.006/0,15
E	.050/1,27	.060/1,52
F	.118/3,00	.130/3,30

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