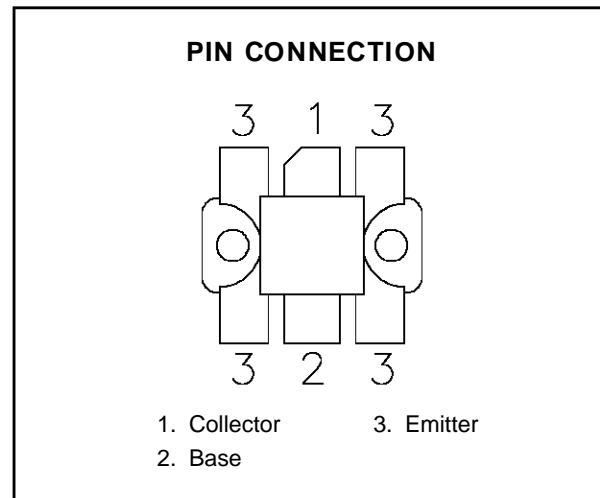
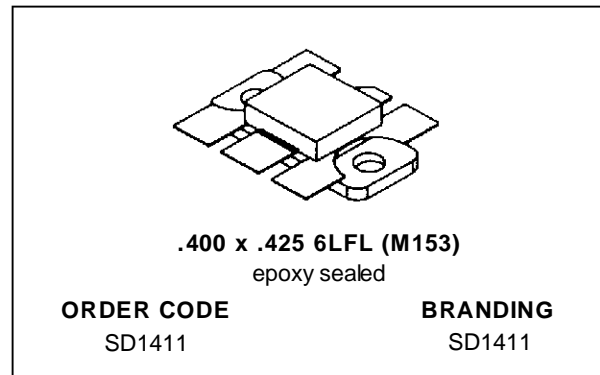


**RF & MICROWAVE TRANSISTORS
HF SSB APPLICATIONS**

- 30 MHz
- 40 VOLTS
- IMD -30 dB
- COMMON EMITTER
- GOLD METALLIZATION
- P_{OUT} = 200 W MIN. WITH 16 dB GAIN


DESCRIPTION

The SD1411 is a silicon NPN transistor designed for telecommunications in HF and VHF frequency bands. This device utilizes gold metallized die with diffused emitter resistors to achieve high reliability and ruggedness.

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

Symbol	Parameter	Value	Unit
V _{CB0}	Collector-Base Voltage	110	V
V _{CEO}	Collector-Emitter Voltage	55	V
V _{EBO}	Emitter-Base Voltage	4.0	V
I _c	Device Current	40	A
P _{DISS}	Power Dissipation	330	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	0.36	°C/W
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SD1411

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

STATIC

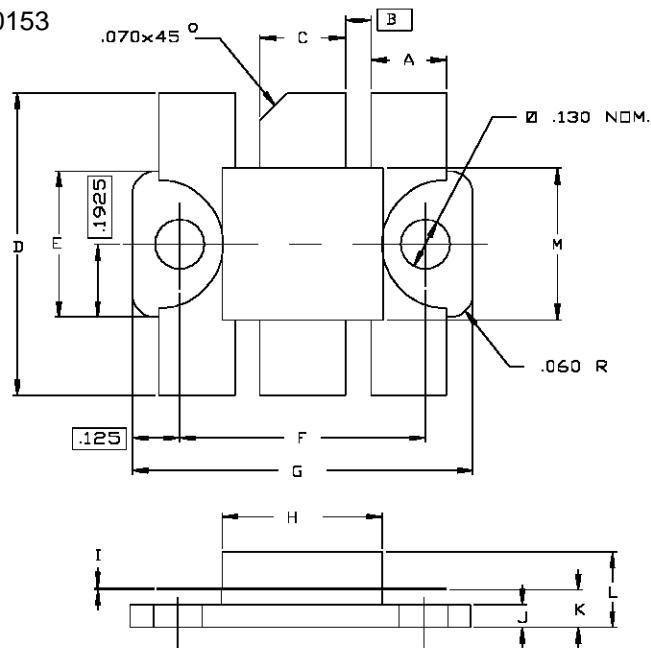
Symbol	Test Conditions		Value			Unit
			Min.	Typ.	Max.	
BV_{CBO}	$I_C = 200mA$	$I_E = 0mA$	110	—	—	V
BV_{CES}	$I_C = 200mA$	$V_{BE} = 0V$	110	—	—	V
BV_{CER}	$I_C = 200mA$	$R_{BE} = 10\Omega$	100	—	—	V
BV_{CEO}	$I_C = 200mA$	$I_B = 0mA$	55	—	—	V
BV_{EBO}	$I_E = 20mA$	$I_C = 0mA$	4.0	—	—	V
I_{CES}	$V_{CE} = 45V$	$I_E = 0mA$	—	—	20	mA
h_{FE}	$V_{CE} = 6V$	$I_C = 10A$	15	—	80	—

DYNAMIC

Symbol	Test Conditions			Value			Unit
				Min.	Typ.	Max.	
P_{OUT}	$f = 30\text{ MHz}$	$V_{CE} = 40\text{ V}$	$I_{CQ} = 150\text{ mA}$	200	—	—	W
G_P	$f = 30\text{ MHz}$	$V_{CE} = 40\text{ V}$	$I_{CQ} = 150\text{ mA}$	16	—	—	dB
IMD	$f = 30\text{ MHz}$	$V_{CE} = 40\text{ V}$	$I_{CQ} = 150\text{ mA}$	—	—	-30	dB
C_{OB}	$f = 1\text{ MHz}$	$V_{CB} = 50\text{ V}$		—	—	360	pF

PACKAGE MECHANICAL DATA

Ref.: Dwg. No.12-0153



SGS-THOMSON MICROELECTRONICS			CONT'D		
	MINIMUM Inches/mm	MAXIMUM Inches/mm		MINIMUM Inches/mm	MAXIMUM Inches/mm
A	.195/4,95	.205/5,21	K	.095/2,41	.110/2,79
B	.067/1,70		L		.220/5,59
C	.220/5,59	.230/5,84	M	.395/10,03	.408/10,36
D	.790/20,07	.810/20,57			
E	.380/9,65	.390/9,91			
F	.645/16,38	.655/16,64			
G	.885/22,48	.905/22,98			
H	.420/10,67	.433/11,00			
I	.003/0,08	.007/0,18			
J	.055/1,40	.065/1,65			

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