

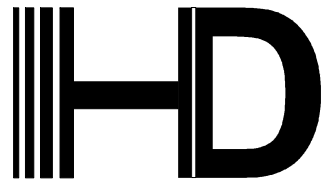
Approved by:

Checked by:

Issued by:

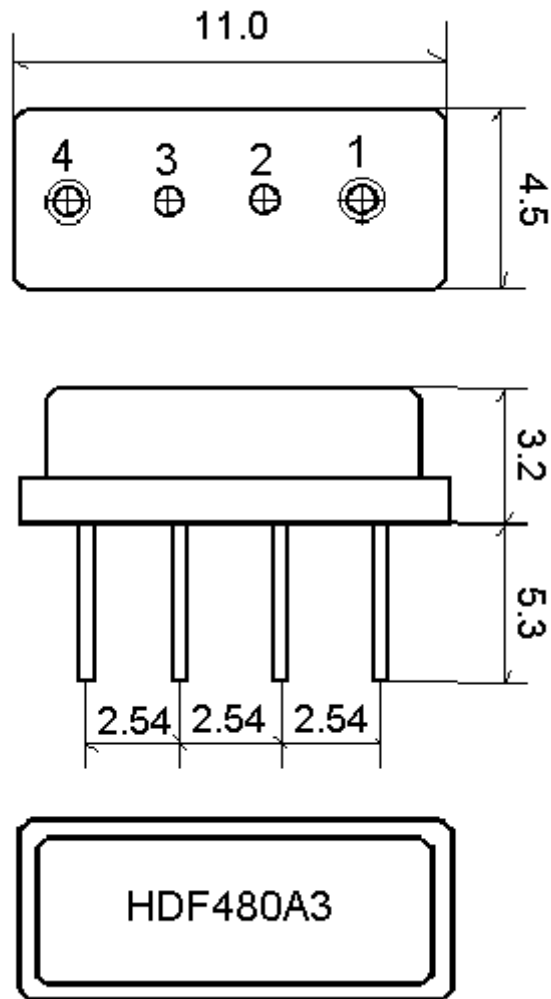
SPECIFICATION

MODEL: HD F480A3F11



SHOULDER ELECTRONIC LIMITED

1. Package Dimension



Unit: mm

NO.	Function
1	Input/Output
2	GND
3	GND
4	Input/Output

2. Marking

HDF480A3

3. Features

- *IF filter for DSB receivers
- *Constant group delay
- *Improved ESD capability by integrated shunt resistors
- *Optimized group delay time

4.Performance

4-1.Maximum Rating

DC Voltage V_{DC}	10V
AC Voltage V_{PP}	5V(50Hz/60Hz)
Storage Temperature	-40 °C to +80 °C
Operable Temperature	-25 °C to +85 °C

4-2 Electronic Characteristics

Preliminary data					
Characteristics					
Ambient temperance		TA=25 °C			
Source impedance		ZS=50 Ω			
load impedance		ZL=50 Ω			
Characteristics		Minim	Typical	Maximu	Unit
Insertion attenuation	480.00MHz				
Reference level for the following data			20.0	21.5	dB
Center frequency	fc	479.00	479.50	481.00	MHz
Pass Bandwidth	BW3	25.6	26.6	27.6	MHz
Relative attenuation	466.5MHz		3.0	4.6	dB
	493.5MHz		3.2	4.6	dB
Lower side lobe	430.0-455.5MHz	40.0	46.0		dB
Upper side lobe	504.5-530.0MHz	38.0	43.0		dB
Reflected wave signal suppression	0.15us-2.0us after main pulse	40.0	46.0		dB
Amplitude ripple	473.50-486.50MHz		0.3	0.5	dB
Group delay	480.00MHz		227.5		ns
Group Delay Ripple	467.00-493.00MHz		8.5	15.0	ns
Impedance at 480.00MHz					
Input $Z_{in}=R_{in} \parallel C_{in}$			60 \parallel 4.8		Ω \parallel pF
output $Z_{out}=R_{out} \parallel C_{out}$			260 \parallel 3.1		Ω \parallel pF
DC Resistance	Input R_{in}		500		Ω
	Output R_{out}		500		Ω
Temperature coefficient of frequency	TC_f		-86		ppm/k

CAUTION: Electrostatic Sensitive Device. Observe precautions for handling

Frequency Characteristics

►1: Transmission /M Log Mag 10.0 dB/ Ref -48.92 dB
 ▷2: Transmission /M Log Mag 1.0 dB/ Ref -20.57 dB

