

Features

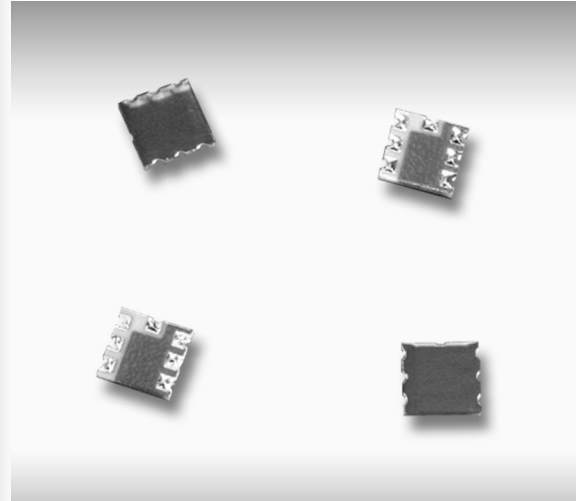
- Single, Completely Passive Device
- True RMS Power Detection Independent of Modulation
- Wide Dynamic Range
- Highly Linear to RF Power Level
- Internal-Temperature Compensation
- Surface Mountable
- Immune to Damage from Common Levels of Static Electric Discharge and Radiation

Advantages Over Diode Detectors

- Reduced Component Count
- No Added Intermodulation
- Temperature Insensitivity
- Radiation and ESD Immunity
- Modulation Independent
- Converts RF Input Power to Linear Voltage Output

Applications

- Amplifiers
- Broadcast Transmitters
- Built-in Test Equipment (BITE)
- LO Monitor
- Telecom Base Stations
- Radar Systems
- Satcom
- VSWR Meters



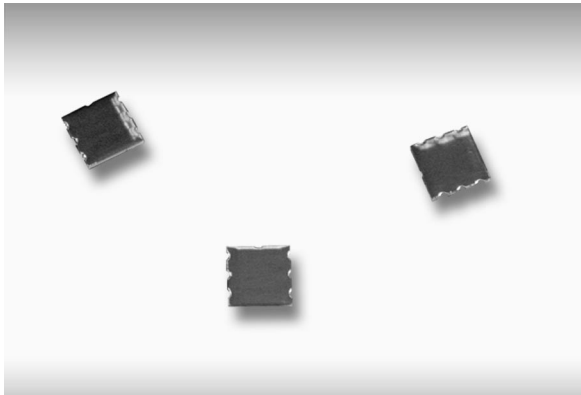
EMC Technology's SmartLoad® (Patent # 5,953,811 and 6,147,481) Power Sensing Terminations provide a single chip solution for measuring True RMS RF power. SmartLoad® responds to the heating effects of RF power and is ideal for amplifier, satellite, base station, BITE, and other microwave circuit applications.

Quick Selector Chart

Part Number	Sensitivity (mV/W)	Max Input Power (W)	Frequency Range (MHz)
PST-01-A-1	400	0.8	600-6000
PST-04-A-1	700	0.6	600-6000
PST-06-A-1	500	0.6	DC-6000

Table of Contents

General Specifications	30
PST-01	31
PST-04	32
PST-06	33



EMC Technology's PST-04 series SmartLoad Power Sensing Terminations offer improved response times and sensitivity for critical RMS power sensing and fault detection. These units include coupling capacitors to isolate the DC component from the RF power. Temperature compensation is built into the design.

General Specifications

- Impedance 50 Ohms Nominal
- Frequency 600 to 6000 MHz
- Power Rating 0.6 Watts Max @ 25° C
- Power Derating 100% @ 100° C
Derates to 0% @ 125° C
- Operating Temperature -55° C to 125° C
- Sensitivity 700 mV/Watt
- Response Time12 mseconds
- Power Supply 14mA Max @ 5V
- VSWR 1.50 Max
- Offset Voltage ±10 mV (no RF input)
- Output Linearity ... ±10% Deviation from best fit straight line

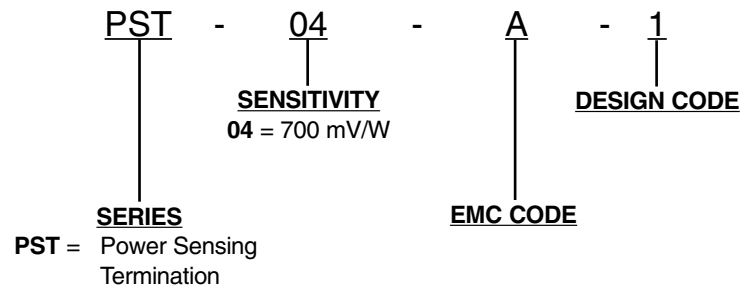
Material Specifications

- Substrate Alumina
- Resistive Element Thick Film
- Termination Material Thick Film
Nickel Barrier, Solder Plated Finish

Pinout Designations

Pin	PST-04
1	Ground
2	Ground
3	Ground
4	Temperature Reference
5	Supply Voltage
6	Power Output Reference
7	RF Input

Ordering Information



PST-04

