

Linear Systems replaces discontinued Siliconix SST510

Current Regulator Diode — P_{OV} (min) 45 V

Description:

The SST510 belongs to a family of ±20% range current regulators designed for demanding applications in test equipment and instrumentation. These devices utilize JFET techniques to produce a device which is extremely simple to operate.

Features:

- Surface-Mount Package
- Guaranteed ±20% Tolerance
- P_{OV} (min) 45V
- Good Temperature Stability

SST510 Applications:

- Constant-Current Supply
- Current-Limiting
- Timing Circuits

Benefits:

- Simple Series Circuitry, No Separate Voltage Source
- Tight Guaranteed Circuit Performance
- Excellent Performance in Low-Voltage / Battery Circuits and High-Voltage Spike Protection
- High Circuit Stability vs. Temperature

SST510 Electrical Characteristics @ 25°C (Unless otherwise stated)

SYMBOL	CHARACTERISTIC	MIN	TYP	MAX	UNITS	CONDITIONS
P _{OV}	Peak Operating Voltage ²	45			V	I _F = 1.1I _{F(max)}
V _R	Reverse Voltage		0.8		V	I _R = 1mA
C _F	Forward Capacitance		1.5		pF	V _F = 25V, f = 1MHz

SST510 Specific Electrical Characteristics @ 25°C (Unless otherwise stated)

PART	Forward Current ³ I _F			Dynamic Impedance ⁴ Z _d		Knee Impedance Z _k	Limiting Voltage ⁵ V _L	
	V _F = 25V			V _F = 25V		V _F = 6V	I _F = 0.8I _{F(min)}	
	MIN	NOM	MAX	MIN	TYP	TYP	TYP	MAX
SST510	2.900	3.60	4.300	0.08	0.3	0.04	3.9	1.9

Absolute Max Ratings @ 25°C unless otherwise stated

Maximum Temperatures

Storage Temperature - 55 to +150°C
 Junction Temperature..... - 55 to +135°C

Maximum Power Dissipation

Continuous Power Dissipation 350mW

Maximum Currents

Forward Current 20mA
 Reverse Current 50mA

Maximum Voltages

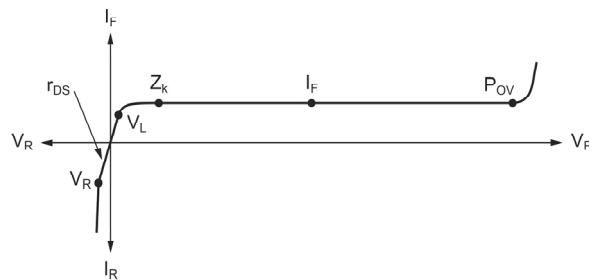
Peak Operating Voltage P_{OV} = 50V

1. Absolute maximum ratings are limiting values above which serviceability may be impaired.
2. Pulsed, t = 2ms. Maximum V_F where I_F < 1.1I_{F(max)}.
3. Pulsed, t = 2ms. Continuous currents may vary.
4. Pulsed, t = 2ms. Continuous impedances may vary.
5. Min V_F required to ensure I_F = 0.8I_{F(min)}.

For SST510 product enquiries & mechanical details please contact your stocking representative Micross Components

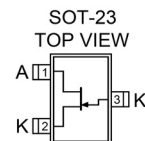
chipcomponents@micross.com

V-I CURRENT CHARACTERISTICS REGULATING DIODE



SST510 Availability:

SOT-23
Bare die



Short Pins 2 & 3 via PCB trace.

