

PRECISION 5.0 VOLT MICROPOWER VOLTAGE REFERENCE

789-148

ZRA500A03/Y03

ZRA500*03

DEVICE DESCRIPTION

The ZRA500 uses a bandgap circuit design to achieve a precision micropower voltage reference of 5.0 volts. The device is available in a small outline surface mount package, ideal for applications where space saving is important, as well as packages for through hole requirements. The ZRA500 design provides a stable voltage without an external capacitor and is stable with capacitive loads. The ZRA500 is recommended for operation between 50µA and 5mA and so is ideally suited to low power and battery powered applications.

ABSOLUTE MAXIMUM RATING

Reverse Current	25mA
Operating Temperature	-40 to 85°C
Storage Temperature	-55 to 125°C

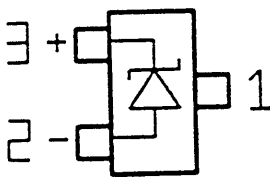
ELECTRICAL CHARACTERISTICS

TEST CONDITIONS (unless otherwise stated): at Tamb = 25°C

PARAMETER	SYMBOL	MIN	TYP	MAX	UNITS	CONDITIONS
Reverse Breakdown Voltage	V _R	4.85	5	5.15	V	I _R =150µA
Knee (minimum) Current	I _{RMIN}		30	50	µA	
Recommended Operating Current Range	I _R	0.05		5	mA	
Average Reverse Breakdown Voltage Temperature Coefficient	T _C		70	150	ppm/°C	
Slope Resistance	R _S		0.55	2	Ω	I _R =150µA to 5mA

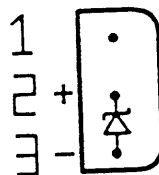
CONNECTION DIAGRAMS

ZRA500F03
TOP VIEW



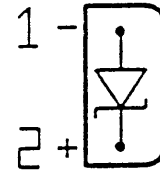
SOT23
PIN 1 FLOATING OR
CONNECTED TO PIN 2
PART MARKING - 50A

ZRA500A03
BOTTOM VIEW



E-LINE, 3 PIN (TO92)
PIN 1 FLOATING OR
CONNECTED TO PIN 3

ZRA500Y03
BOTTOM VIEW



E-LINE, 2 PIN (TO92)
METAL CAN TO18
REPLACEMENT



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