FAIRCHILD SEMICONDUCTOR TM

BZX84C15

5% TOLERANCE

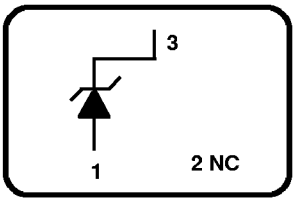
DISCRETE POWER AND SIGNAL TECHNOLOGIES

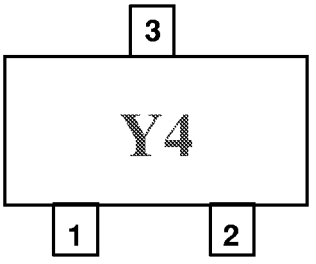
Absolute Maximum Ratings (note 1) TA = 25°C unless otherwise noted

Parameter	Value	Units
Storage Temperature	-55 to +150	°C
Maximum Junction Temperature	+150	°C
Total Power Dissipation at 25°C	350	mW
Derate above 25°C	1.8	mW/°C
Thermal Resistance - Junction to Ambient	357	°C/W
Repetitive Peak Forward Current (I_{FRM})	250	mA
Repetitive Peak Working Current (I_{ZRM})	250	mA
D_{VZ}/D_T @ 5.0 mA	Min 9.2	mV/K
	Max 13.0	mV/K
Nominal Zener Voltage (V_Z) at 5.0 mA	15.0	V

Note 1: These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

CONNECTION DIAGRAM





MECHANICAL CHARACTERISTICS

Case: JEDEC SOT-23AB (Low Profile)
(Plastic 3 Leaded Surface Mount Device)
Lead Finish: Solder Plate 85/15 (Sn/Pb) 200 um Min
Polarity: Cathode = Pin 1. When operated in zener mode, cathode will be positive with respect to anode.

Electrical Characteristics TA = 25°C unless otherwise noted

SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
V_Z	Zener Voltage	13.7 13.8 13.9	15.5 15.6 15.7	V V V	I_{ZT} = 1.0 mA Pulse 26 mS I_{ZT} = 5.0 mA Pulse 26 mS I_{ZT} = 20.0 mA D.C
Z_Z	Zener Impedance		200 30 20	Ohms Ohms Ohms	I_{ZT} = 1.0 mA I_{ZT} = 5.0 mA I_{ZT} = 20.0 mA
I_R	Reverse Leakage		50	nA	V_R = 10.5 V
V_F	Forward Voltage		900	mV	I_F = 10 mA
C_T	Capacitance		75	pF	V_R = 0.0 V

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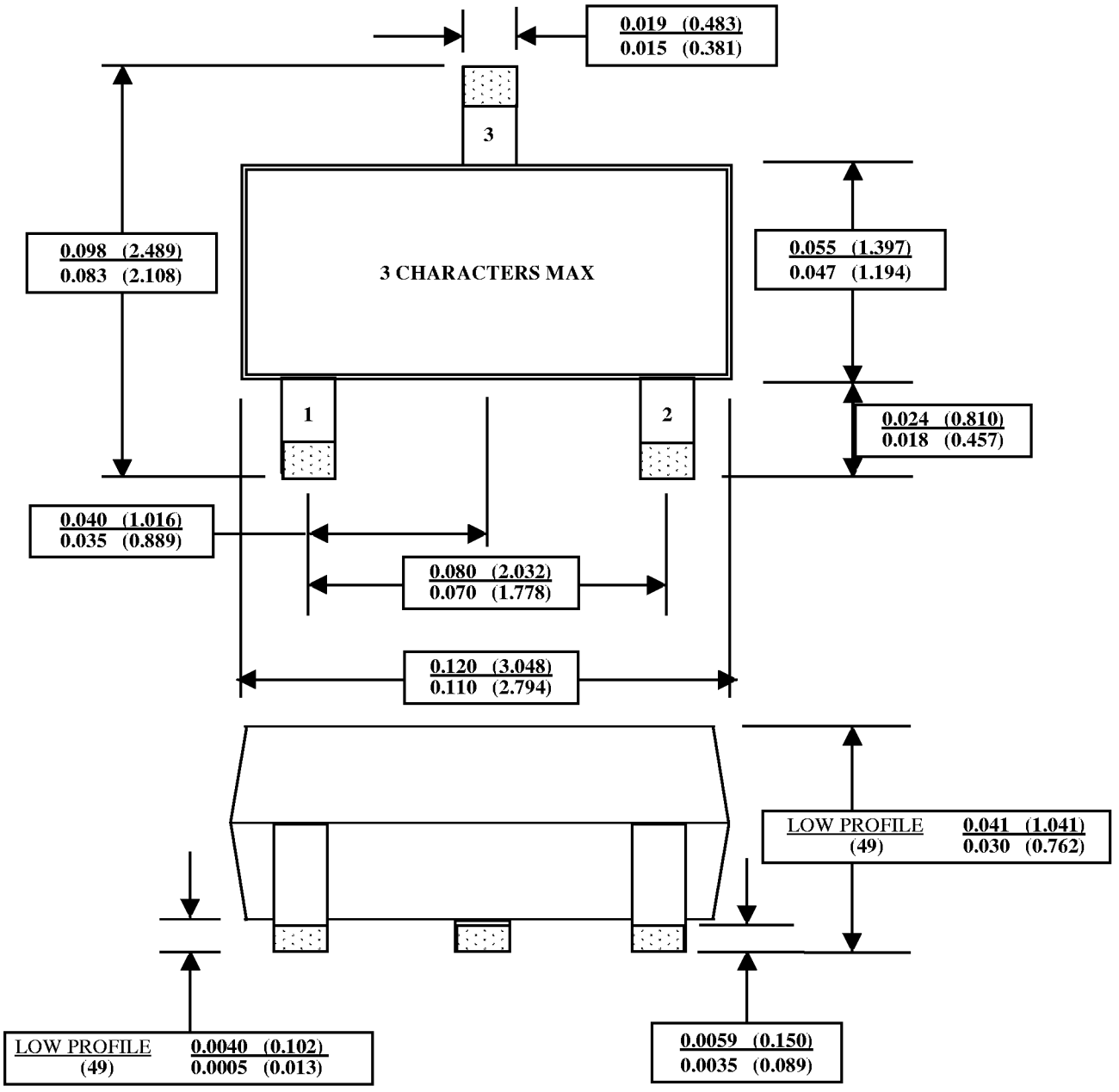
The pin identification shown below is for Diode and Zener devices only



SOT-23

350 MILLIWATT ZENER

Diode vs Bipolar Pinout

Diode		Bipolar
Pin 1	=	Pin 2
Pin 2	=	Pin 3
Pin 3	=	Pin 1

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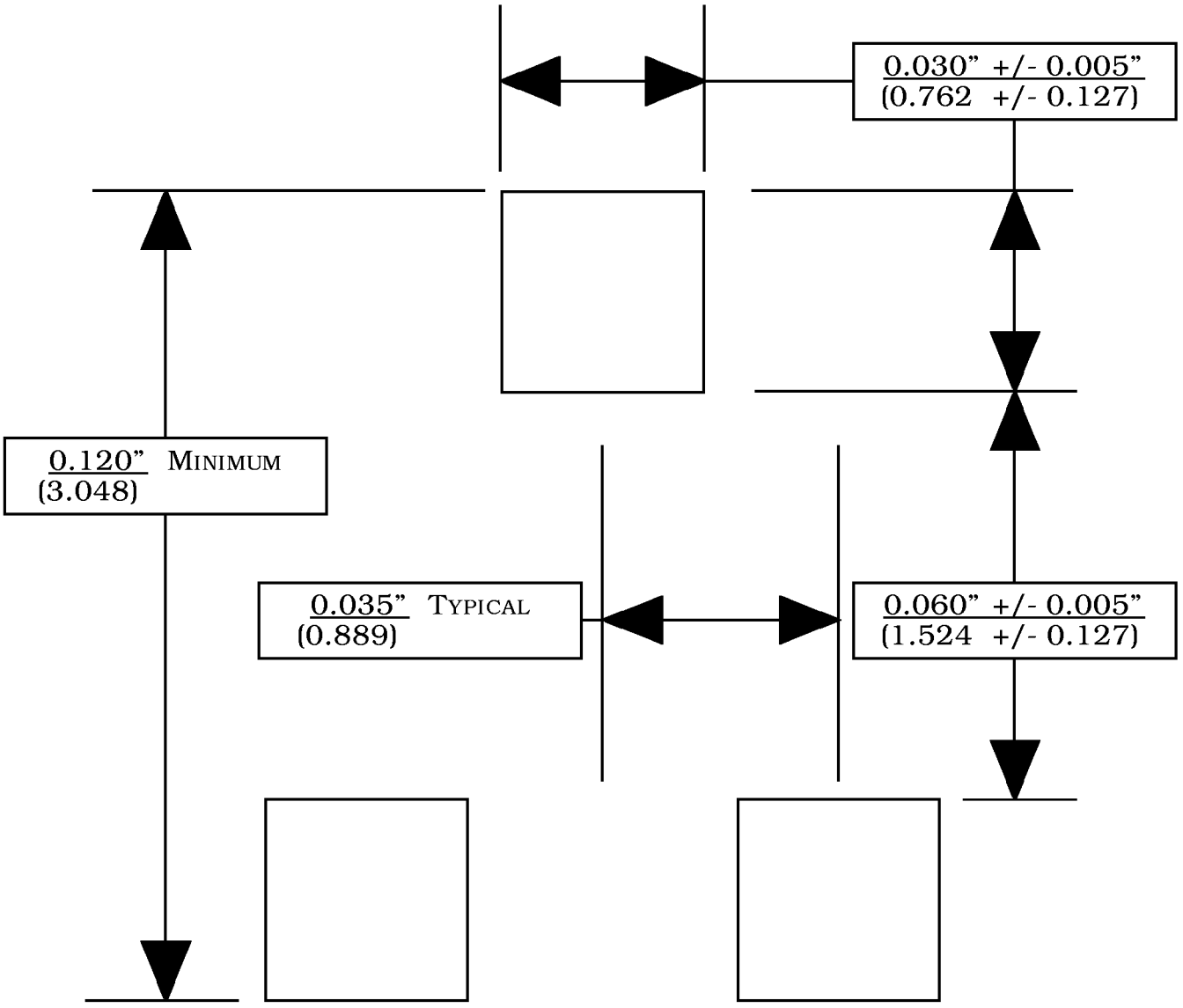

RECOMMENDED SOLDER PADS
FOR
SOT-23