

General Description:

The high breakdown voltage, fast switching speed and high forward conductance of this diode packaged in a SOT-23 Surface Mount package makes it desirable also as a general purpose diode.

High Conductance Fast Diode

Absolute Maximum Ratings* TA = 25°C unless otherwise noted

Sym	Parameter	Value	Units
T _{stg}	Storage Temperature	-55 to +150	°C
T _J	Operating Junction Temperature	-55 to +150	°C
P _D	Total Power Dissipation at T _A = 25°C	350	W
	Linear Derating Factor from T _A = 25°C	2.8	mW/°C
R _{OJA}	Thermal Resistance Junction-to-Ambient	357	°C/W
W _{iv}	Working Inverse Voltage	75	V
I _O	Average Rectified Current	200	mA
I _F	DC Forward Current (IF)	600	mA
i _f	Recurrent Peak Forward Current (IF)	700	mA
i _{F(surge)}	Peak Forward Surge Current (IFSM) Pulse Width = 1.0 second	1.0	Amp
	Pulse Width = 1.0 microsecond	2.0	Amp

Features:

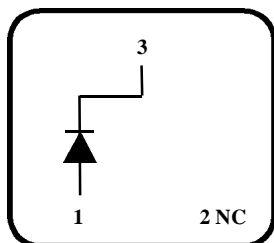
- 350 milliwatt Power Dissipation package.
- High Breakdown Voltage, Fast Switching Speed.
- Typical capacitance less than 1.5 picofarad.

Ordering:

- 7 inch reel (178 mm); 8 mm Tape; 3,000 units per reel.

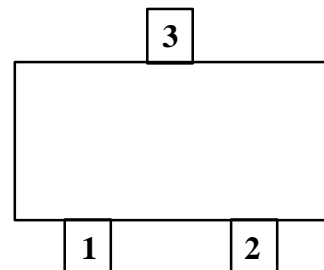
*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired

CONNECTION DIAGRAMS



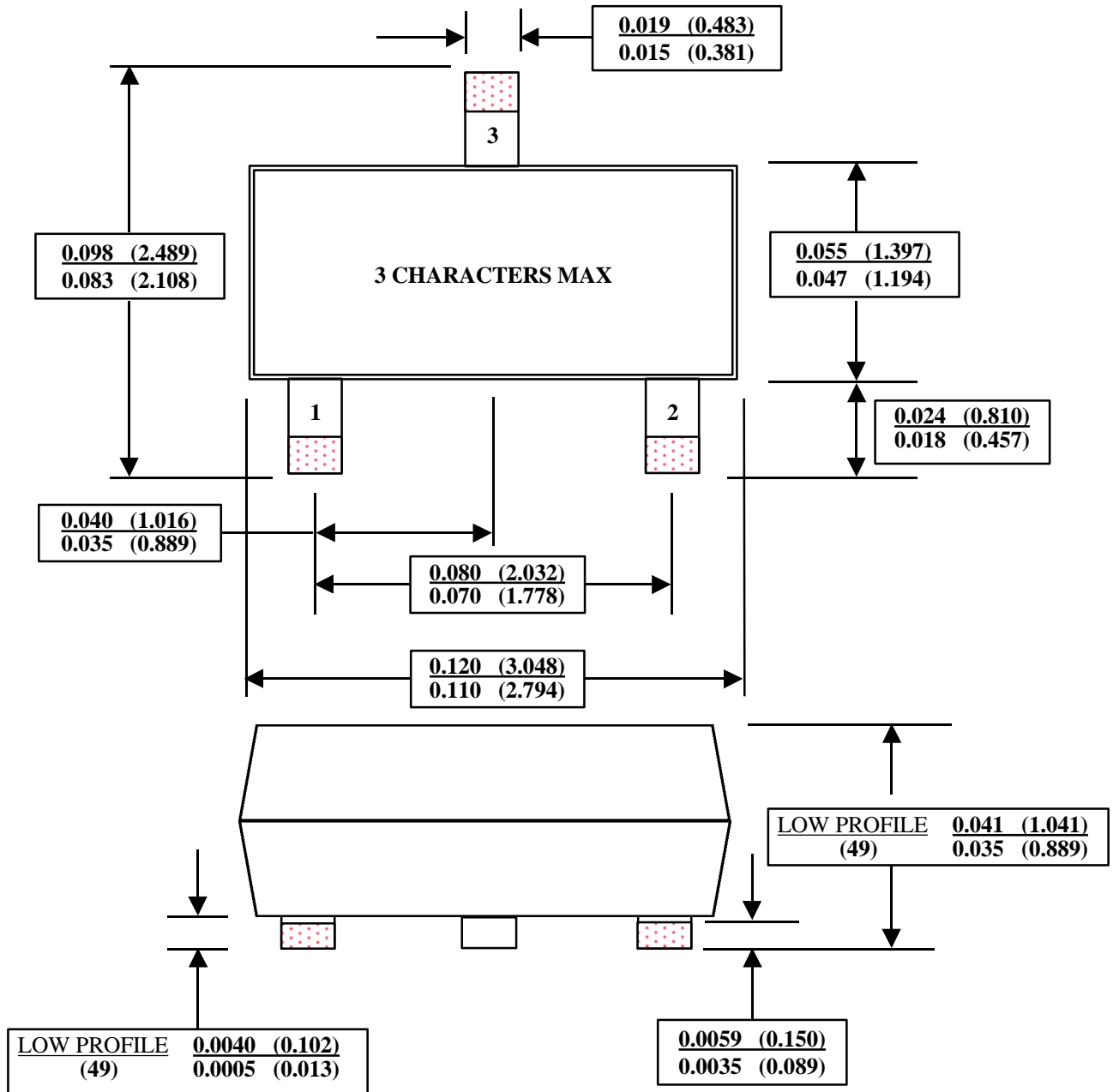
PACKAGE
TO-236AB (Low)

Top Mark: RAB

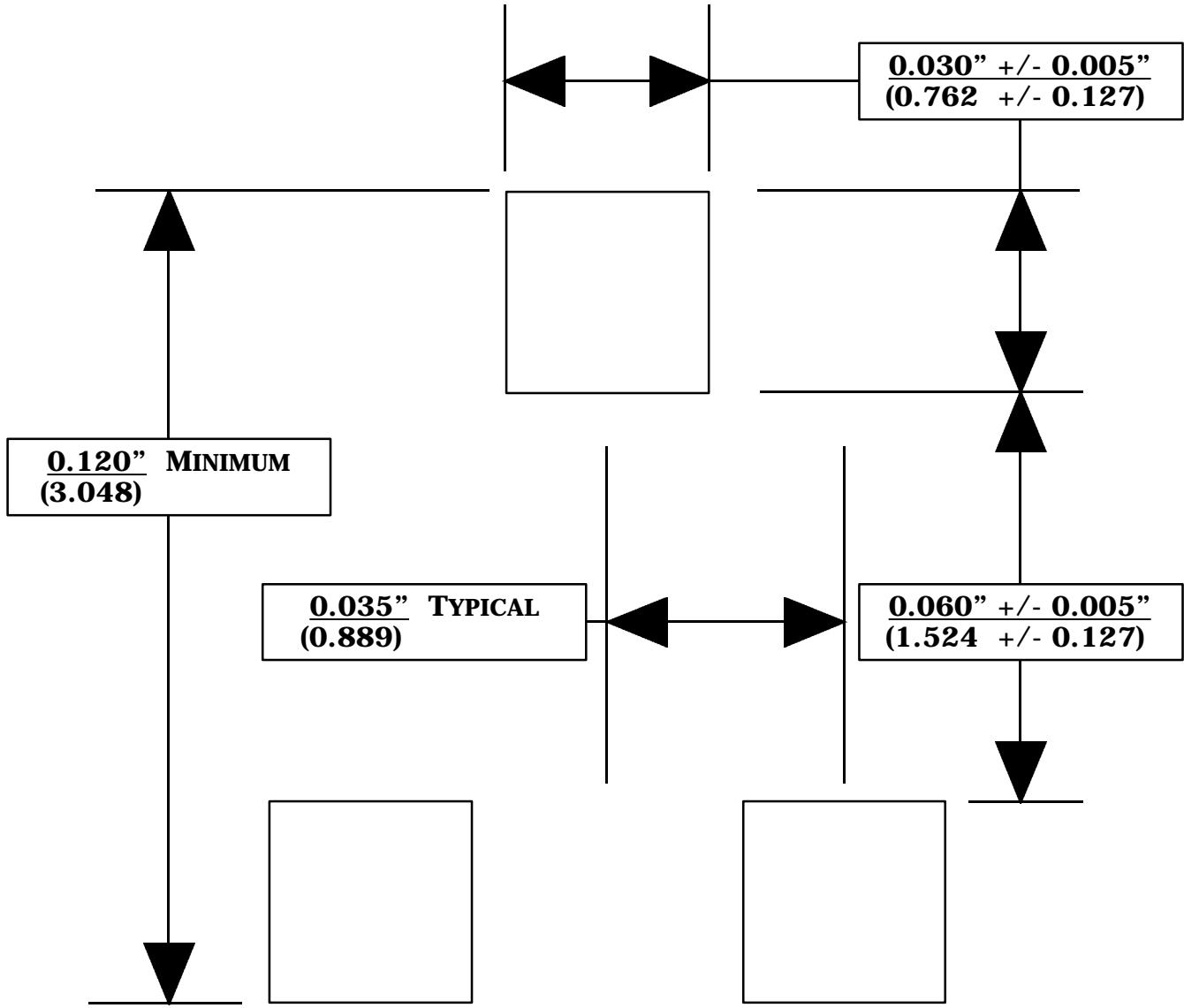


Electrical Characteristics TA = 25°C unless otherwise noted

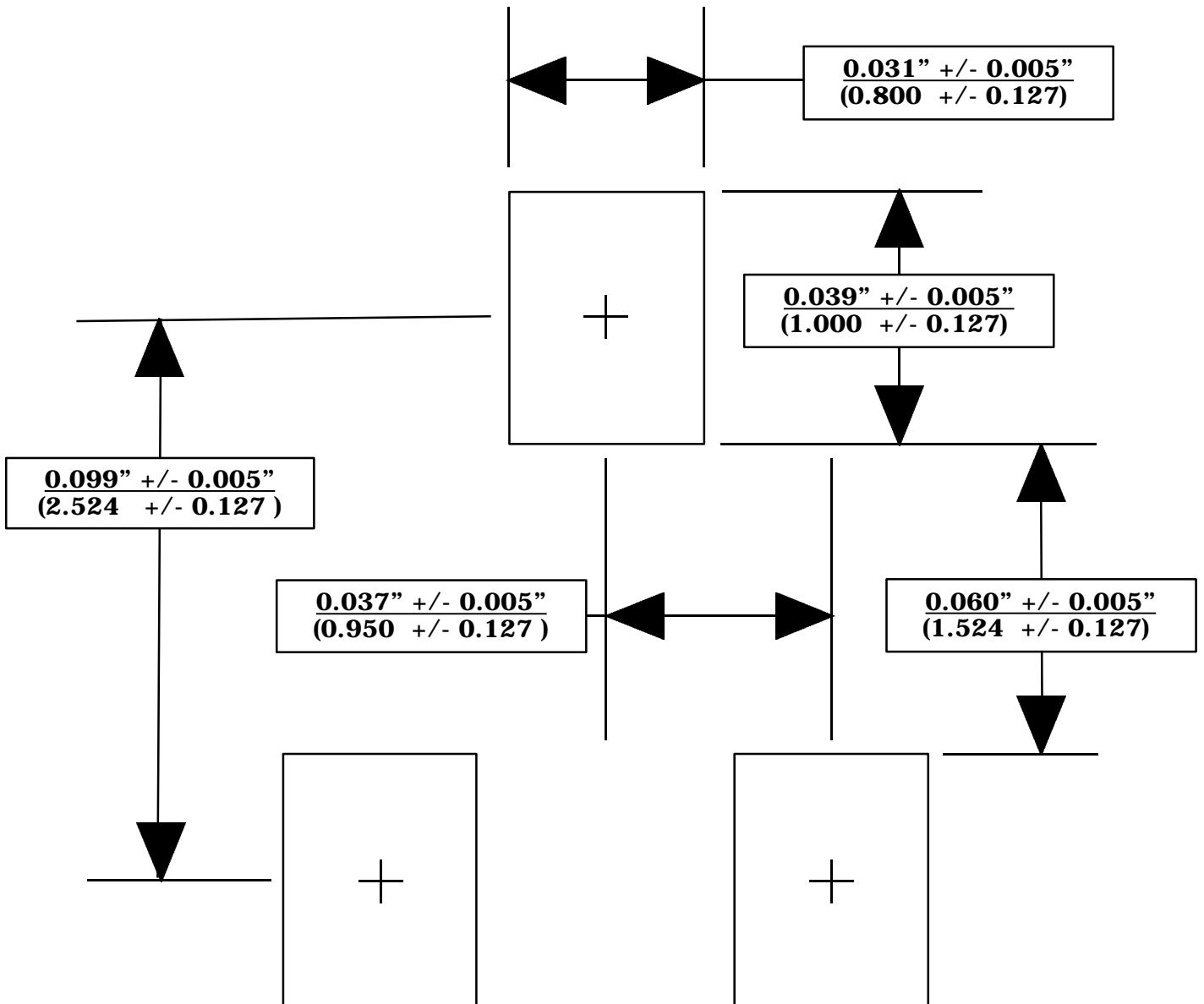
SYM	CHARACTERISTICS	MIN	MAX	UNITS	TEST CONDITIONS
B _V	Breakdown Voltage	100		V	I _R = 100 uA
				V	I _R = 5.0 uA
I _R	Reverse Leakage		25	nA	V _R = 20 V
			50	uA	V _R = 20 V T _A = 150 Deg C
			5.0	uA	V _R = 75 V
V _F	Forward Voltage	620	720	mV	I _F = 5 mA
			1.0	V	I _F = 100 mA
C _T	Capacitance		2.0	pF	V _R = 0.0 V, f = 1.0 MHz
T _{RR}	Reverse Recovery Time		4.0	ns	I _F = 10 mA I _R = 10 mA I _{RR} = 1.0 Ma, R _L = 100 ohms
V _{FM}	Peak Forward Recovery Voltage		2.5	V	I _F = 50 mA Pk Square Wave



SOT-23
Diode (pinout)
TO-236AB (LOW PROFILE)
22-August-1994



**RECOMMENDED SOLDER PADS
FOR
SOT-23**



**RECOMMENDED SOLDER PADS
FOR
U.S. & European SOT-23
&
Japanese SC-59**

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FACT™	QFET™	
FACT Quiet Series™	QS™	
FAST®	Quiet Series™	
FASTr™	SuperSOT™-3	
GTO™	SuperSOT™-6	
HiSeC™	SuperSOT™-8	

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