

## Features

- Designed for applications with stringent profile restrictions
- Passivated mesa structure for very low leakage currents
- Epitaxial structure minimizes forward voltage drop
- Hermetically sealed, extremely low profile ceramic seal package with flexible copper leads for surface mount soldering or welding
- Very low package inductance and thermal resistance
- Qualification estimated completion August 1998, includes temperature cycling 2,000 cycles at -197°C to +150°C (liquid-to-liquid)
- Available in reverse voltage ranges from 50V to 300V

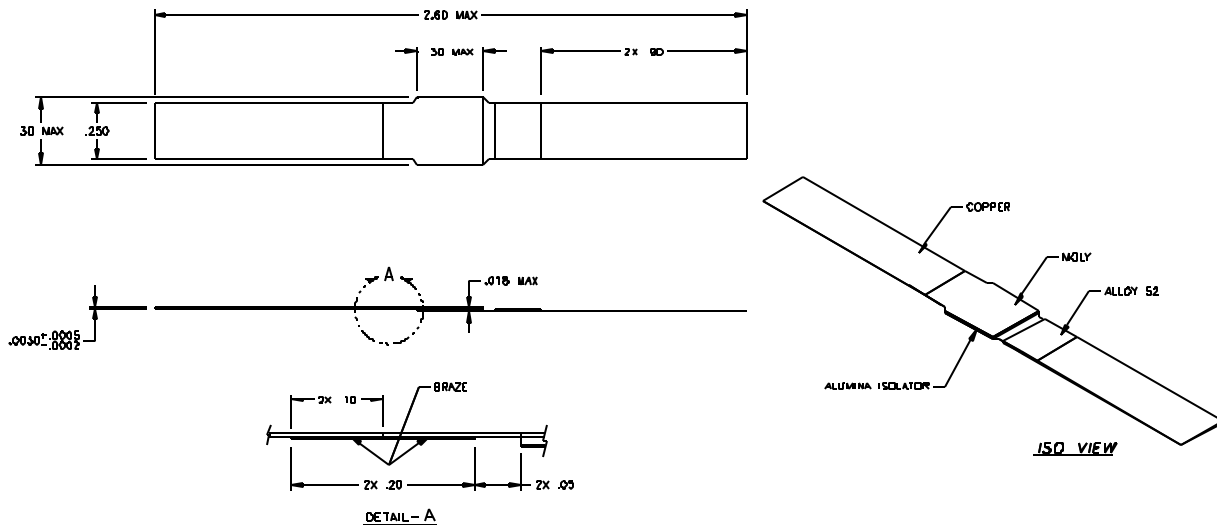
**200 Volts**  
**10 Amps**  
**2 ms**

**ELP (EXTRA LOW PROFILE) STANDARD RECTIFIER**

## Maximum Ratings @ 25°C (unless otherwise specified)

DESCRIPTION	SYMBOL	MAX.	UNIT
Peak Repetitive Reverse Voltage	$V_{RRM}$	200	Volts
Working Peak Reverse Voltage	$V_{RWM}$	200	Volts
DC Blocking Voltage	$V_R$	200	Volts
Average Rectified Forward Current, $T_c \leq 125^\circ\text{C}$	$I_{F(ave)}$	10	Amps
Nonrepetitive Peak Surge Current, $t_p = 8.3$ ms, half-sinewave	$I_{FSM}$	100	Amps
Junction Temperature Range	$T_j$	-65 to +175	°C
Storage Temperature Range	$T_{stg}$	-65 to +175	°C
Thermal Resistance, Junction to Case:	$\theta_{JC}$	1.0 (typ.0.4)	°C/W

## Mechanical Outline



**MX040-20**

Santa Ana, CA  
**Microsemi**  
 Programs Powered by Technology

## Electrical Parameters

# PRELIMINARY

DESCRIPTION	SYMBOL	CONDITIONS	MIN	TYP.	MAX	UNIT
Reverse (Leakage) Current	$I_{R25}$	VR= rated VRWM Vdc, Tc= 25°C		.05	1	μA
	$I_{R125}$	VR= rated VRWM Vdc, Tc= 125°C			0.1	mA
Forward Voltage pulse test, pw= 300 μs d/c ≤ 2%	VF1	IF= 0.1 A, Tc= 25°C		700	780	mV
	VF2	IF= 0.5 A, Tc= 25°C		750	830	mV
	VF3	IF= 2 A, Tc= 25°C		825	900	mV
	VF4	IF= 5 A, Tc= 25°C		875	950	mV
	VF5	IF= 10 A, Tc= 25°C		930	1000	mV
Junction Capacitance	Cj1	VR= 10 Vdc			tbd	pF
	Cj2	VR= 5 Vdc			tbd	pF
Breakdown Voltage	BVR	IR= 100 μA, Tc= 25°C	220	250	n/a	V
Reverse Recovery Time	trr	IF= .5 A, IR= 1 A, IRR= .25 A		1	2	μs