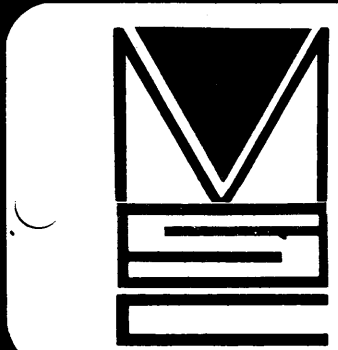


MICROSEMICONDUCTOR CORPORATION

11250 PLAYA COURT • CULVER CITY, CALIFORNIA
TELEPHONE EX 1-8271 • UP 0-2974 Area Code 213
TWX 871-5209

BULLETIN MSC 3

SILICON MICRO STABISTORS

MicroSemiconductor Corporations MC32, MC33, MC34, MC35, MC36 and MC37 are high speed stabistors (as well as minimum recovery) for use in general purpose and computer circuit applications. The units consist of 1, 2, or 3 passivated glass pellets mounted in a microminiature double heat sink whiskerless package. This type of construction makes possible stabistors with closely controlled forward conductance as well as recovery and leakage. The controlled forward is highly desired in the design of clamping circuits, bias regulators, meter protectors, clippers, d-c coupling circuits, and other circuitry demanding tight tolerances on forward voltage levels.

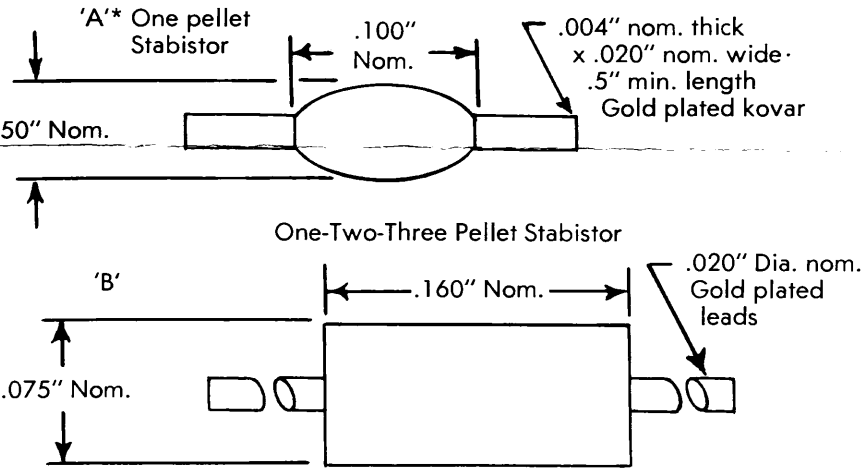
ABSOLUTE MAXIMUM RATINGS (25° C)

Power Dissipation
Package A: 250 mW
Package B: 400mW

Operating Temperature
−65° C to +150° C

Storage Temperature
+190° C

MECHANICAL SIZE



ELECTRICAL CHARACTERISTICS: (25° C)

		MC32		MC33		MC34		MC35		MC36		MC37	
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
Forward Voltage													
(I_F = .01 mA)	V_F	.400	.500	.805	1.010	1.230	1.530	.300	.400	.610	.810	.930	1.230
(I_F = .1 mA)	V_F	.480	.580	.965	1.170	1.470	1.770	.400	.500	.810	1.010	1.230	1.530
(I_F = 1.0 mA)	V_F	.580	.680	1.170	1.370	1.770	2.070	.500	.600	1.010	1.210	1.530	1.830
(I_F = 10 mA)	V_F	.700	.800	1.410	1.610	2.130	2.430	.600	.700	1.210	1.410	1.830	2.130
(I_F = 100 mA)	V_F	.730	.830	1.470	1.670	2.220	2.520	.780	.880	1.570	1.770	2.370	2.670
Capacitance [V_R = OV; f = 1 mc (pf)]	C_O		15		8		5		10		5		3
Reverse Current (V_R = 20 V)	I_R		.05		.05		.05		.05		.05		.05
Breakdown Voltage (I_R = 5 uA)	B_V	30 V		30 V		30 V		30 V		30 V		30 V	
Reverse Recovery (T_{RR} = usec)	T_{RR}	.5(1)	4.0	.5(1)	4.0	.5(1)	4.0	.002(2)	.050	.002(2)	.050	.002(2)	.050

RECOVERY CIRCUIT:

(1) JAN256 Test Set — Recovers 5 mA forward to 40 V recovery to 100K ohms
(2) Lumatron Test Set — Recovers 10 mA forward to 6 V reverse recovers to 1 mA

*MC32 and MC35 are available in 'A' or 'B' size; when ordering please specify 'A' or 'B' to indicate mechanical size desired.

MICROSEMICONDUCTOR CORPORATION
11250 PLAYA COURT • CULVER CITY, CALIFORNIA
TELEPHONE EX 1-8271 • UP 0-2974 Area Code 213
TWX 871-5209

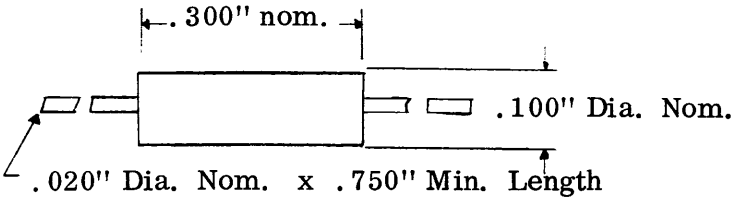
MC151

BULLETIN 131

AVALANCHE HIGH VOLTAGE SILICON DIODES

TYPE	PIV (volts)	MAXIMUM RATINGS Max. Average Rectified Current (mA) 25° C	75° C	ELECTRICAL CHARACTERISTICS Max. Forward Drop at Rated Current 25° C (volts)	Max. Reverse Current @ PIV 25° C (μA)	Peak Forward Surge Current (8 ms) (A)
MC151	1000	40	20	1.0	1.0	3.0
MC152	1000	20	10	2.0	1.0	2.0
MC153	1000	10	5	4.0	1.0	1.0
MC154	2000	40	20	2.0	1.0	3.0
MC155	2000	20	10	3.0	1.0	2.0
MC156	2000	10	5	4.0	1.0	1.0
MC157	3000	40	20	3.0	1.0	3.0
MC158	3000	20	10	4.0	1.0	2.0
MC159	3000	10	5	4.0	1.0	1.0
MC160	4000	40	20	4.0	1.0	3.0
MC161	4000	20	10	4.0	1.0	2.0
MC162	4000	10	5	4.0	1.0	1.0

MECHANICAL OUTLINE



MC 456

ICROSEMICONDUCTOR CORPORATION
• 11250 PLAYA COURT, CULVER CITY, CALIFORNIA • EXmont 1-8271
TWX-213-871-5209 UPton 0-2974

BULLETIN 104*

MICRO SIZE – MACRO RELIABILITY

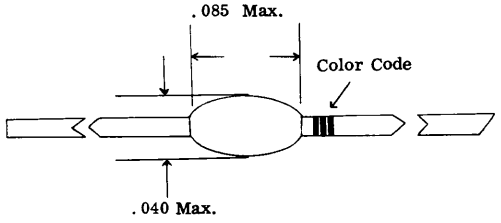
MicroSemiconductor Corporation has achieved effective surface passivation by means of unique methods of altering oxides and bonding them to the crystal. Bulky packaging and 90% of semiconductor failure mechanisms are eliminated.

GENERAL PURPOSE

MICRO-DIODES

MSC Type	Equiv. Type	Saturation Voltage @ + 100uA (Volts)	Forward Current @ + 1.0V (mA)	Maximum Reverse Current (uA) 25°C	Maximum Reverse Current (uA) 150°C	Max. Average Rectified Current @ 25°C (mA)
MC456	1N456	30	40	0.025@ -25V	5.0@ -25V	100
MC456A	1N456A	30	100	0.025@ -25V	5.0@ -25V	150
MC457	1N457	70	20	0.025@ -60V	5.0@ -60V	100
MC457A	1N457A	70	100	0.025@ -60V	5.0@ -60V	150
MC458	1N458	150	7	0.025@ -125V	5.0@ -125V	50
MC458A	1N458A	150	100	0.025@ -125V	5.0@ -125V	150
MC459	1N459	200	3	0.025@ -175V	5.0@ -175V	25
MC459A	1N459A	200	100	0.025@ -175V	5.0@ -175V	150
MC461	1N461	30	15	0.5 @ -25V	30.0@ -25V	100
MC461A	1N461A	30	100	0.5 @ -25V	30.0@ -25V	150
MC462	1N462	70	5	0.5 @ -60V	30.0@ -60V	25
MC462A	1N462A	70	100	0.5 @ -60V	30.0@ -60V	150
MC463	1N463	200	1	0.5 @ -175V	30.0@ -175V	25
MC463A	1N463A	200	100	0.5 @ -175V	30.0@ -175V	150
MC464	1N464	150	3	0.5 @ -125V	30.0@ -125V	25
MC464A	1N464A	150	100	0.5 @ -125V	30.0@ -125V	150
MC482	1N482	40	100(@1.1V)	0.25 @ -30V	30.0@ -30V	150
MC482A	1N482A	40	100	0.025@ -30V	15.0@ -30V	150
MC482B	1N482B	40	100	0.025@ -30V	5.0@ -30V	150
MC483	1N483	80	100(@1.1V)	0.25 @ -60V	30.0@ -60V	150
MC483A	1N483A	80	100	0.025@ -60V	15.0@ -60V	150
MC483B	1N483B	80	100	0.025@ -60V	5.0@ -60V	150
MC484	1N484	150	100(@1.1V)	0.25 @ -125V	30.0@ -125V	150
MC484A	1N484A	150	100	0.025@ -125V	15.0@ -125V	150
MC484B	1N484B	150	100	0.025@ -125V	5.0@ -125V	150
MC485	1N485	200	100(@1.1V)	0.25 @ -175V	30.0@ -175V	150
MC485A	1N485A	200	100	0.025@ -175V	15.0@ -175V	150
MC485B	1N485B	200	100	0.025@ -175V	5.0@ -175V	150
MC486	1N486	250	100(@1.1V)	0.25 @ -225V	30.0@ -225V	150
MC486A	1N486A	250	100	0.025@ -225V	15.0@ -225V	150
MC486B	1N486B	250	100	0.025@ -225V	5.0@ -225V	150
MC487	1N487	330	100(@1.1V)	0.25 @ -300V	50.0@ -300V	150
MC487A	1N487A	330	100	0.1 @ -300V	25.0@ -300V	150
MC487B	1N487B	330	100	0.025@ -300V	10.0@ -300V	150
MC488	1N488	410	100(@1.1V)	0.25 @ -380V	50.0@ -380V	150
MC488A	1N488A	410	100	0.1 @ -380V	25.0@ -380V	150
MC488B	1N488B	410	100	0.025@ -380V	10.0@ -380V	150
MC678	1N678	230	200	1.0 @ -200V	200.0@ -200V	200
MC890	1N890	80	20	0.025@ -60V	5.0@ -60V	100
MC170	FD300	150	200	0.001@ -125V	3.0@ -125V	200

* REVISION NUMBER 3



PHYSICAL CHARACTERISTICS

1. Terminals - .005 x .020 gold plated leads, lead length 1/2" minimum.
2. Marking-Type number designated by color or body and color stripes on pointed (cathode) lead.
3. Hermetically Sealed - Stable Surface Films integrally Bonded to the Device Crystal.

RATINGS

1. Power Dissipation: 300 mw @ 25°C.
2. Operating Temperature Range: - 65°C to + 175°C.
3. Storage Temperature: 200°C.

RELIABILITY

Meets or exceeds all requirements of MIL-S-19500C and MIL-STD-750.