

## GENERAL PARAMETER RESTRICTIONS FOR 100% DICE TEST:

Unmounted dice do not have the power ratings of packaged devices, therefore test conditions as well as ratings may need to be reduced or sampled in packaged form as described below:

$V_F$  = 200 mA maximum. Accuracy variable above 50 mA, highly contact dependent.\*

$I_R$  = Testing in dark required. Normal handling to 10 nA. Special handling, cables and contacts required to 1 nA.

$B_V$  = Normal care 300 Volts maximum. Special care for dice >600 Volts — Requires hand test, special test box and environment. Dice are to be tested and maintained in an inert atmosphere to insure stability and eliminate arcing.

$V_Z$  = 300 Volts maximum.  $V_Z$  tests requiring  $I_Z$  of over 200 mA not reliable.\*

$Z_{zt}$  = 1 Ohm minimum.  $Z_{zt}$  tests requiring  $I_Z$  of over 200 mA not reliable.\*

$Z_{ZK}$  = Not very reliable test due to AC pick up in probe and contact leads.

A.C. Tests such as  $t_{fr}$ , junction capacitance,  $V_f$  peak,  $t_{fr}$ ,  $r_e$ , are not performed as 100% tests.

\*High Current Tests such as  $V_f$  or  $V_Z$  at current levels over 200 mA cannot be reliably performed on dice, but must be die attached and bonded or sealed in a proper test vehicle package.

### A.C. OR HIGH CURRENT PARAMETER TESTING:

A.C. parameters (or high current parameters when required) are lot guaranteed, not 100% tested. Samples sufficient to guarantee an LTPD of 5, or an equivalent AQL, are assembled from the inspection lot and all required parameters tested. These samples must meet the specified quality level or the lot is rejected.

Tighter AQL's are available by special lot selection or special controlled lot processing.

## ZENER REGULATORS

INDUSTRY STANDARD PART#	MICROSEMI CHIP PART#	POWER/ CURRENT RATING	DIE SIZE		DIE THICKNESS	DIE GEOMETRY (FIGURE#)	METALLIZATION		PACKAGING		NOTE
			MESA PAD	BASE			TOP	BASE	WAFFLE	F. VIAL	
1N957B- 1N992B	MD957B- MD992B	400 mW	.011"	.022"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	1, 2
1N4461- 1N4496	MD4461- MD4496	1.5 Watt	.019"	.033"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	1, 2
1N4954- 1N4996	MD4954- MD4996	5 Watt	.049"	.0615"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	1, 2
1N5063- 1N5117	MD5063- MD5117	3 Watt	.030"	.048"	.009"	#7	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	1, 2
1N6309- 1N6319	MD6309- MD6319	500 mW	See Note 3		.008"	#3	Al	Au	*	*	1, 2
1N6320- 1N6355	MD6320- MD6355	500 mW	.019"	.024"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	1, 2

## RECTIFIERS

1N482B, 1N485B- 1N486B	MD482B, MD485B- MD486B	General Purpose .2 A @ 25°C	.011"	.022"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	2, 6
1N645- 1N649	MD645- MD649	General Purpose .2 A @ 25°C	.017"	.026"	.009"	#6	10K $\text{\AA}$ Au	4K $\text{\AA}$ Au	*	*	2

SANTA ANA, CA

For more information call:  
(714) 979-8220

## RECTIFIERS (cont'd)

INDUSTRY STANDARD PART#	MICROSEMI CHIP PART#	POWER/ CURRENT RATING	DIE SIZE		DIE THICKNESS	DIE GEOMETRY (FIGURE#)	METALLIZATION		PACKAGING		NOTE
			MESA PAD	BASE			TOP	BASE	WAFFLE	F. VIAL	
1N3595	MD3595	General Purpose .2 A @ 25°C	.009"	.015"	.008"	#3	Al	Au	★	★	5
1N3600	MD3600	Switching .2A @ 25°C	.007"	.015"	.008"	#3	Al	Au	★	★	4
1N3611,	MD3611,	General	.019"	.033"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N3612,	MD3612,	Purpose	.030"	.048"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N3613,	MD3613,	1 Amp	.030"	.048"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N3614,	MD3614,	@	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N3957	MD3957	100°C	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4001,	MD4001,	General	.049"	.0615"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2, 6
1N4004,	MD4004,	Purpose	.049"	.0615"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2, 6
1N4005,	MD4005,	1 Amp	.049"	.0615"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4007	MD4007	(Max.)	.049"	.0615"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4148,	MD4148,	Switching	.0055"	.015"	.008"	#3	Al	Au	★	★	4
1N4150	MD4150	.2 A (Max.)	.007"	.015"	.008"	#3	Al	Au	★	★	4
1N4245-	MD4245-	General	.019"	.033"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4246	MD4246	Purpose	.019"	.033"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4247-	MD4247-	1 Amp	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4249	MD4249	@ 100°C	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4942-	MD4942-	Fast	.019"	.033"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4944	MD4944	Recovery									
1N4946-	MD4946-	1 Amp	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N4948	MD4948	@ 55°C									
1N5415-	MD5415-	Fast	.049"	.0615"	.009"	#6	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2, 6
1N5420	MD5420	Recovery 3 Amp									
1N5614,	MD5614,	General	.030"	.048"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5616,	MD5616,	Purpose									
1N5618	MD5618	1 Amp									
1N5620,	MD5620,	@	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5622	MD5622	50°C									
1N5550-	MD5550-	General	.049"	.0615"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5553,	MD5553,	Purpose									
1N5554	MD5554	5 Amps @ 55°C	.074"	.088"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5615,	MD5615,	General	.030"	.048"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5617,	MD5617,	Purpose									
1N5619	MD5619	1 Amp									
1N5621,	MD5621,	@	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2
1N5623	MD5623	55°C									
1N5802-	MD5802-	Ultra-Fast	.035"	.050"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2, 6
1N5806	MD5806	Recovery 1 Amp @ 55°C									
1N5807-	MD5807-	Ultra-Fast	.074"	.088"	.009"	#7	10K $\bar{\Lambda}$ Au	4K $\bar{\Lambda}$ Au	★	★	2, 6
1N5811	MD5811	Recovery 3 Amps @ 55°C									

## RECTIFIERS (cont'd)

INDUSTRY STANDARD PART#	MICROSEMI CHIP PART#	POWER/CURRENT RATING	DIE SIZE		DIE THICKNESS	DIE GEOMETRY (FIGURE#)	METALLIZATION		PACKAGING		NOTE
			MESA PAD	BASE			TOP	BASE	WAFLE	F. VIAL	
1N6073-1N6075	MD6073-MD6075	Ultra-Fast Recovery 3 Amp (Average)	.030"	.048"	.009"	#7	10KÅ Au	4KÅ Au	★	★	2, 6
1N6076-1N6078	MD6076-MD6078	6 Amp (Average)	.074"	.088"	.009"	#7	10KÅ Au	4KÅ Au	★	★	2, 6
1N6079-1N6081	MD6079-MD6081	12 Amp (Average)	.115"	.129"	.009"	#7	10KÅ Au	4KÅ Au	★	★	2, 6
1N6626-1N6627	MD6626-MD6627	Ultra-Fast Recovery 5-6 Amp (Average)	.074"	.090"	.009"	#7	10KÅ Au	4KÅ Au	★	★	2

Note 1: 6.8-39 Volts; 91-200 Volts Cathode Mesa, 43-82 Volts Anode Mesa.

Note 2: Special metallization is available.

Note 3: Planar die .021 square, bonding pad anode up.

Note 4: Planar die also available in .021 square.

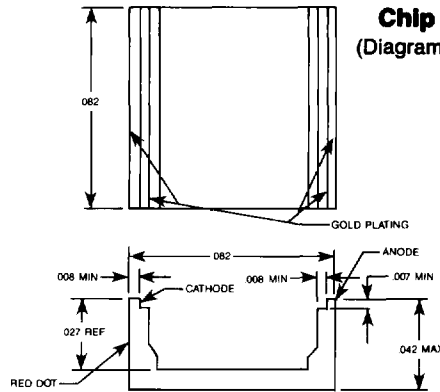
Note 5: Figure #2 when ordering .021 square die.

Note 6: Anode mesa available less than 200 Volts.

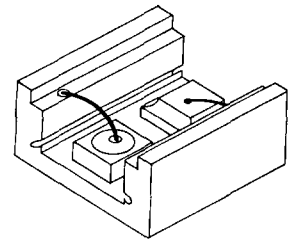
## ZERO TEMPERATURE COMPENSATED REFERENCE DIODES

INDUSTRY STANDARD PART#	MSC PART#
1N821-1N829	CZ821-CZ829
1N935-1N939	CZ935-CZ939
1N941-1N945	CZ941-CZ945

(Packaged in Waffle Packs)



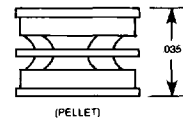
**Chip on Channel**  
(Diagram and Dimensions)



## BI-DIRECTIONAL TRANSIENT VOLTAGE SUPPRESSORS

INDUSTRY STANDARD PART#	MSC PART#	Diameter	Thickness	Metallization
1N6103-1N6137	DD6103-DD6137	.090	.035	Ag
1N6139-1N6173	DD6139-DD6173	.130	.035	Ag

(Packaged in Waffle Packs)



SANTA ANA, CA

For more information call:  
(714) 979-8220