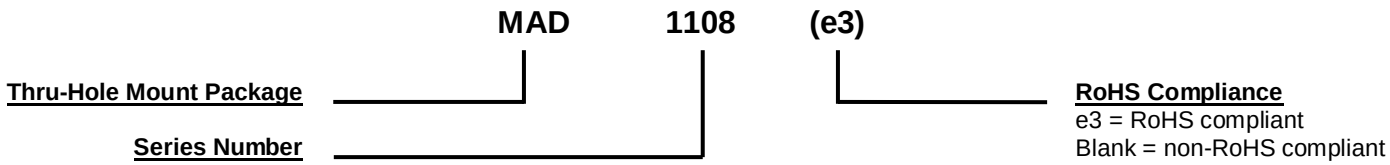
MAXIMUM RATINGS

Parameters/Test Conditions	Symbol	Value	Unit
Junction and Storage Temperature	T_J and T_{STG}	-55 to +150	ºC/W
Peak Working Reverse Voltage	V_{RWM}	75	V
Repetitive Peak Forward Current (one diode)	I_{FRM}	400	mA
Forward Surge Current @ 8.3 ms @ 8/20 µs	I_{FSM}	2 12	A
Rated Average Power dissipation (total)	$P_{M(AV)}$	1500	mW
Solder Temperature @ 10 s	T_{SP}	260	ºC

MECHANICAL and PACKAGING

- CASE: Void-free transfer molded thermosetting epoxy body meeting UL94V-0 flammability classification
- TERMINALS: Tin-lead or RoHS compliant annealed matte-tin plating solderable per MIL-STD-750 method 2026
- MARKING: MSC logo, MAD1108 or MAD1108e3 and date code. Pin #1 is to the left of the dot or indent on top of package.
- DELIVERY OPTION: Carrier tube. Consult factory for quantities
- WEIGHT: Approximately 0.997 grams
- See Package Dimensions on last page.

PART NOMENCLATURE



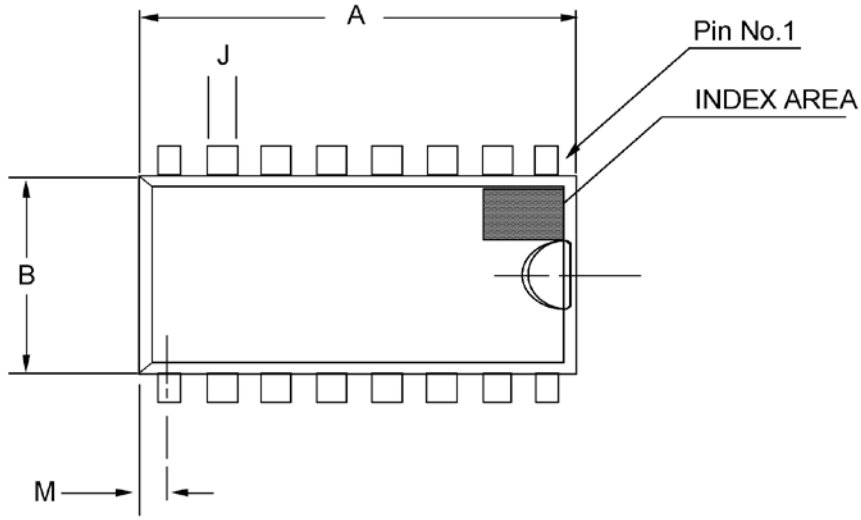
SYMBOLS & DEFINITIONS

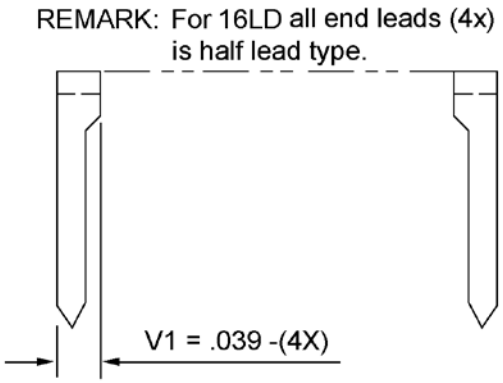
Symbol	Definition
C_T	Total Capacitance: The total small signal capacitance between the diode terminals of a complete device.
I_R	Reverse Current: The dc current flowing from the external circuit into the cathode terminal at the specified voltage V_R.
$V_{(BR)}$	Breakdown Voltage: The voltage across the device at a specified current $I_{(BR)}$ in the breakdown region.
V_F	Forward Voltage: A positive dc anode-cathode voltage the device will exhibit at a specified forward current.
V_{RWM}	Working Peak Reverse Voltage: The peak voltage excluding all transient voltages (ref JESD282-B). Also sometimes known historically as PIV.

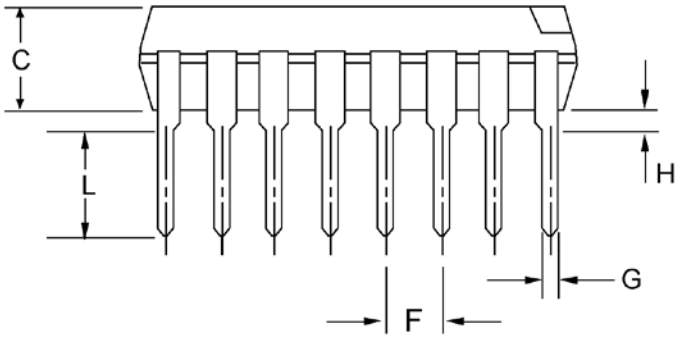
ELECTRICAL CHARACTERISTICS @ 25 ºC unless otherwise stated

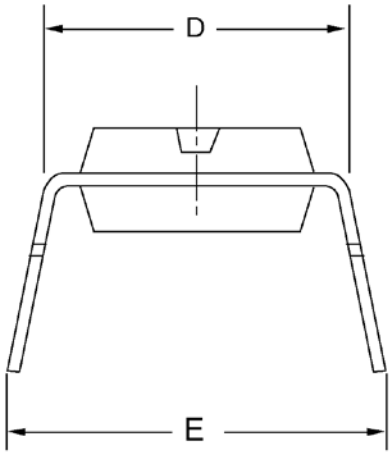
PART NUMBER	BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)}$ =100 µA V	LEAKAGE CURRENT I_R T_A = 25 °C µA		LEAKAGE CURRENT I_R T_A = 150 °C µA		TOTAL CAPACITANCE C_T @ 0 V pF	REVERSE RECOVERY TIME t_{rr} ns	FORWARD VOLTAGE V_F I_F = 10 mA V	FORWARD VOLTAGE V_F I_F = 100 mA V
	MIN	MAX	@V_R	MAX	@V_R	TYP	MAX	MAX	MAX
MAD1108 MAD1108e3	90	0.200	20	300	20	1.5	5.0	1.00	1.20

PACKAGE DIMENSIONS



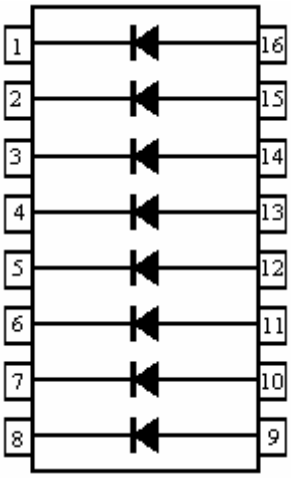




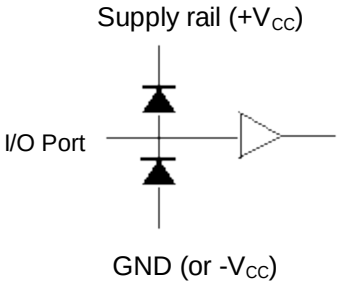


Ref.	Dimensions			
	Inch		Millimeters	
	Min	Max	Min	Max
A	0.746	0.754	18.95	19.15
B	0.246	0.254	6.248	6.452
C	0.126	0.134	3.200	3.404
D	0.300	0.325	7.619	8.255
E	0.320	0.370	8.128	9.398
F	0.098	0.102	2.489	2.591
G	0.016	0.020	0.406	0.508
H	0.015	0.040	0.381	1.016
J	0.058	0.062	1.473	1.575
L	0.121	0.129	3.073	3.277
M	0.25 REF		0.635 REF	

PAD LAYOUT



CONFIGURATION



STEERING DIODE APPLICATION