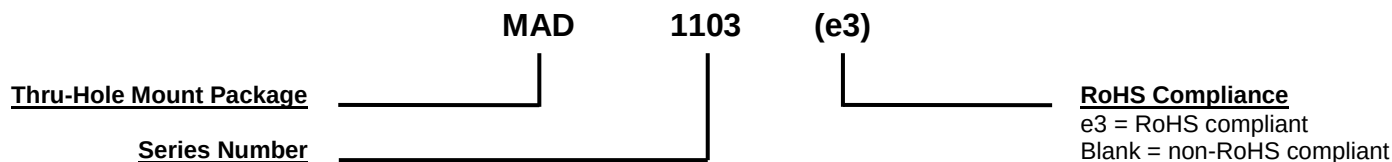


MAXIMUM RATINGS

Parameters/Test Conditions	Symbol	Value	Unit
Junction and Storage Temperature	T_J and T_{STG}	-55 to +150	°C/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	I_{FSM}	2	A
@ 8/20 μ s		12	
Rated Average Power dissipation (total)	$P_{M(AV)}$	1500	mW
Solder Temperature @ 10 s		260	°C

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, MAD1103 or MAD1103e3 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.

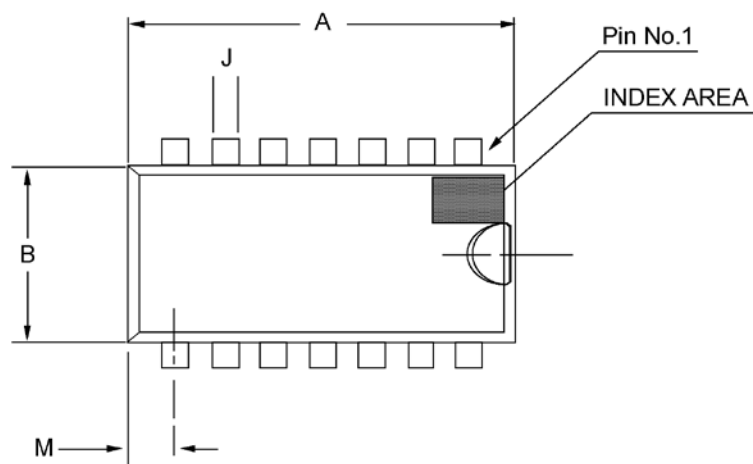
PART NOMENCLATURE

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.

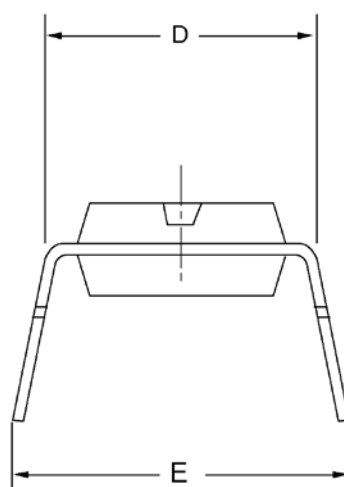
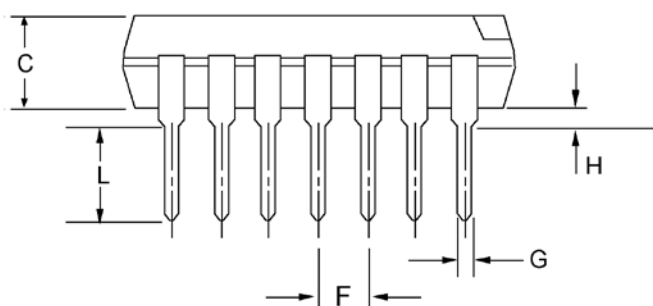
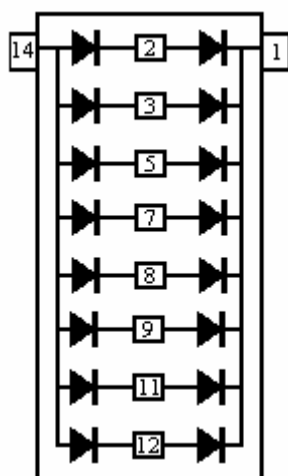
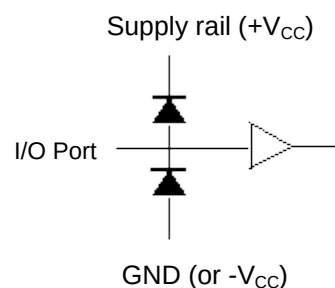
ELECTRICAL CHARACTERISTICS @ 25 °C unless otherwise stated

PART NUMBER	BREAKDOWN VOLTAGE $V_{(BR)}$ @ $I_{(BR)} = 100 \mu A$	LEAKAGE CURRENT I_R $T_A = 25 \text{ } ^\circ C$		LEAKAGE CURRENT I_R $T_A = 150 \text{ } ^\circ C$		CAPACITANCE C_T @ 0 V	REVERSE RECOVERY TIME t_{rr}	FORWARD VOLTAGE V_F $I_F = 10 \text{ mA}$	FORWARD VOLTAGE V_F $I_F = 100 \text{ mA}$
	V	μA		μA		pF	ns	V	V
	MIN	MAX	@ V_R	MAX	@ V_R	TYP (Note 1)	MAX	MAX	MAX
MAD1103 MAD1103e3	90	0.200	20	300	20	1.5	5.0	1.00	1.20

NOTE 1: Individual diode capacitance is less than 1.5 pF but will read higher between pins with the connected parallel diode array shown.

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	


CIRCUIT

CONFIGURATION

STEERING DIODE APPLICATION