



High-reliability discrete products  
and engineering services since 1977

# MR1366, MR1376, MR1386, MR1396

## FAST RECOVERY SILICON RECTIFIER

### FEATURES

- Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.
- Available as non-RoHS (Sn/Pb plating), standard, and as RoHS by adding "-PBF" suffix.

### MAXIMUM RATINGS

Characteristics	Symbol	MR1366	MR1376	MR1386	MR1396	Unit
Average rectified forward current	$I_O$	6	12	20	30	A
Forward surge current	$I_{FM}$	150	200	225	300	A
Peak reverse voltage	$V_{RM}$	600				V
Maximum junction operating temperature range	$T_J$	-65 to +150				°C
Maximum case storage temperature range	$T_{stg}$	-65 to +175				°C

### ELECTRICAL CHARACTERISTICS ( $T_A = 25^\circ\text{C}$ unless otherwise specified)

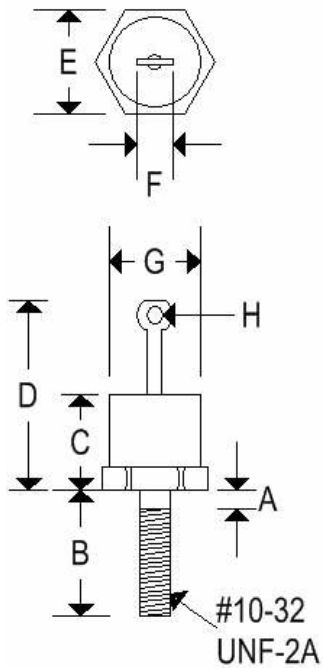
	Characteristic		Symbol	Maximum limit	Unit
MR1366	DC forward voltage drop ( $I_F = 6.0 \text{ Adc}$ )	$T_A = 25^\circ\text{C}$	$V_F$	1.4	Vdc
	DC reverse current (rated $V_R$ )	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.015 1.0	mA
MR1376	DC forward voltage drop ( $I_F = 12 \text{ Adc}$ )	$T_A = 25^\circ\text{C}$	$V_F$	1.4	Vdc
	DC reverse current (rated $V_R$ )	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.025 3.0	mA
MR1386	DC forward voltage drop ( $I_F = 20 \text{ Adc}$ )	$T_A = 25^\circ\text{C}$	$V_F$	1.4	Vdc
	DC reverse current (rated $V_R$ )	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.05 6.0	mA
MR1396	DC forward voltage drop ( $I_F = 30 \text{ Adc}$ )	$T_A = 25^\circ\text{C}$	$V_F$	1.4	Vdc
	DC reverse current (rated $V_R$ )	$T_A = 25^\circ\text{C}$ $T_A = 100^\circ\text{C}$	$I_R$	0.08 10	mA
	Reverse recovery time		$t_{rr}$	0.2	$\mu\text{s}$

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### MECHANICAL CHARACTERISTICS

<b>Case</b>	DO-4(R) (MR1366, MR1376)
<b>Marking</b>	Alpha-numeric
<b>Normal polarity</b>	Cathode is stud
<b>Reverse polarity</b>	Anode is stud (add "R" suffix)



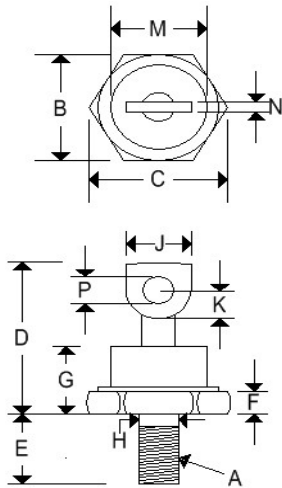
	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
<b>A</b>	-	0.078	-	1.981
<b>B</b>	0.422	0.453	10.719	11.506
<b>C</b>	-	0.405	-	10.287
<b>D</b>	-	0.800	-	20.320
<b>E</b>	0.420	0.440	10.668	11.176
<b>F</b>	-	0.250	-	6.350
<b>G</b>	-	0.424	-	10.770
<b>H</b>	0.066	-	1.676	-

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## MECHANICAL CHARACTERISTICS

Case	DO-5(R) (MR1386, MR1396)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-5(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	¼-28 UNF2A threads			
B	0.669	0.688	16.990	17.480
C	-	0.794	-	20.160
D	-	1.000	-	25.400
E	0.422	0.453	10.720	11.510
F	0.115	0.200	2.920	5.080
G	-	0.450	-	11.430
H	0.220	0.249	5.580	6.320
J	0.250	0.375	6.350	9.530
K	0.156	-	3.960	-
M	-	0.667	-	16.940
N	0.030	0.080	0.760	2.030
P	0.140	0.175	3.560	4.450