New Jersey Semi-Conductor Products, Inc.

20 STERN AVE. SPRINGFIELD, NEW JERSEY 07081 U.S.A. TELEPHONE: (973) 376-2922

(212) 227-6005

FAX: (973) 376-8960

A114A A114F

Fast Recovery Rectifier

2.0 Amps

50-100 Volts

A114 IS A 2.0 AMPERE, AXIAL LEADED, FAST RECOVERY RECTIFIER. DUAL HEATSINK CONSTRUCTION PROVIDES RIGID MECHANICAL SUPPORT FOR THE PELLET AND EXCELLENT THERMAL CHARACTERISTICS. PASSIVATION AND PROTECTION OF THE PN JUNCTION OF THE SILICON PELLET ARE PROVIDED BY SOLID GLASS; NO ORGANIC MATERIALS ARE PRESENT WITHIN THE HERMETICALLY-SEALED PACKAGE.

absolute maximum ratings: (25°C unless otherwise specified)

	A114F	A114A		
Reverse Voltage $(-65^{\circ}\text{C to } + 150^{\circ}\text{C}, \text{T}_{\text{J}})$				
Working Peak, V _{RWM}	50	100	Volts	
Repetitive Peak, $ m V_{RRM}$	50	100	Volts	
DC , V_R	50	100	Volts	
Average Forward Current, Io				
75°C ambient (see Rating Curves)	← 1.	.0	Amperes	
25°C	← 2.	.0	Amperes	
Peak Surge Forward Current, I _{FSM}				
Non-rep., .0083 sec., half sine wave,				
Full load JEDEC method	 4	.0	Amperes	
Non-rep., .001 sec., half sine wave,				
Full load @ $+150^{\circ}$ C, T_{J}	← 8	5	Amperes	
I ² t (for fusing), RMS				
.001 to .01 seconds	← 3.	5	Amp ² secs.	
Junction Temperature Range				
Operating, $T_{\rm J}$	-65°C to $+150$ °C			
Storage, T_{STG}	-65°C to $+175$ °C			

Mounting: Any position. Lead temperature 290°C max. to \(\frac{1}{8}'' \) from body for 5 seconds max. during mounting.

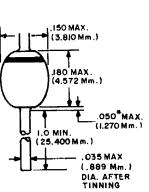
electrical characteristics: (25°C unless otherwise specified)

Maximum Forward Voltage Drop, $ m V_{FM}$			
$I_{FM} = 1.0A, T_J = +25^{\circ}C$	4	i.1 —	Volts
Maximum Reverse Current, $I_{ m RM}$ @ rated $V_{ m RM}$			
$T_{J} = +25$ °C	5	5	Microamps.
$T_{I} = +150^{\circ}C$	500	5 00	Microamps.
Typical Reverse Recovery Time, t _{rr}	← 140 ←		Nanosecs.
Maximum Reverse Recovery Time, t _{rr}	← 2	00 ──	Nanosecs.
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Recovery circuit per MIL-S-19500/286C.

Quality Semi-Conductors





ALL DIMENSIONS ARE IN INCHES AND (METRIC)

*WELD AND SOLDER FLASH NOT CONTROLLED IN THIS AREA

OUTLINE DRAWING