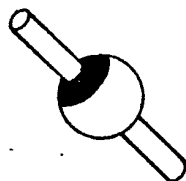


<h1 style="margin: 0;">SHF1302 THRU SHF1306</h1> <h2 style="margin: 0;">3 AMP</h2> <h3 style="margin: 0;">HYPER FAST RECOVERY RECTIFIER</h3> <h2 style="margin: 0;">200-600 VOLTS</h2>	
<p style="font-size: small;">14830 Valley View Avenue La Mirada, California 90638 (213) 921-9660 TWX 910-583-4807 FAX 213-921-2396</p>	

**CASE STYLE**



**FEATURES**

- PIV TO 600 VOLTS
- HYPER FAST RECOVERY 40 NSEC MAX
- VOIDLESS CONSTRUCTION
- FOR HIGH EFFICIENCY APPLICATIONS
- HERMETICALLY SEALED
- LOW FORWARD DROP 1.35 VOLTS
- LOW LEAKAGE CURRENT 10uA
- REPLACES UNITRODE UES1304 SERIES WHERE FASTER trr IS REQUIRED

**MAXIMUM RATINGS**

Rating	Symbol	Value	Unit
Peak Repetitive Reverse Voltage and DC Blocking Voltage	$V_{RM} (rep)$ $V_R$		Volts
SHF1302 SHF1303 SHF1304 SHF1305 SHF1306		200 300 400 500 600	
RMS Reverse Voltage	$V_r$		Volts
SHF1302 SHF1303 SHF1304 SHF1305 SHF1306		140 210 280 350 420	
Half Wave Rectified Forward Current, Averaged Over Full Cycle (Resistive Load, 60Hz, Sine Wave, $T_c = 55^\circ C$ )	$I_0$	3	Amps
Peak Repetitive Forward Current ( $T_c = 55^\circ C$ , 8.3 ms Pulse, Allow Junction to Reach Equilibrium Between Pulses)	$I_{FM} (rep)$	18	Amps
Peak Surge Current ( $T_c = 55^\circ C$ , Superimposed on Rated Current at Rated Voltage, 8.3 ms Pulse)	$I_{FM} (surge)$	75	Amps
Operating and Storage Temperature	$T_J, T_{stg}$	-65to+175	$^\circ C$

**THERMAL CHARACTERISTICS**

Characteristics	Symbol	Max	Unit
Thermal Resistance, Junction to Leads, $L = 3/8"$	$R_{\theta JL}$	20	$^\circ C/W$

**NOTE:** All specifications subject to change without notice.

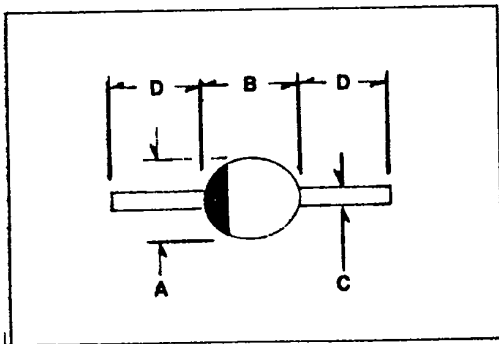
**ELECTRICAL CHARACTERISTICS**

Characteristics	Symbol	Value	Unit
Max Full Cycle Forward Voltage Drop, Averaged Over Full Cycle ( $I_O$ (Max), 60 Hz, Square Wave, $T_C = 55^\circ\text{C}$ )	$V_F(AV)$	.68	Vdc
Max Instantaneous Forward Voltage Drop ( $I_F = 3$ Adc, $T_C = 25^\circ\text{C}$ , 300 $\mu\text{s}$ Pulse)	$V_F$	1.35	Vdc
Max Full Cycle Reverse Leakage Current, Averaged Over Full Cycle (Rated $V_R$ 60Hz, Square Wave, $T_C = 100^\circ\text{C}$ )	$I_R(AV)$	1000	$\mu\text{A}$ dc
Max Reverse Leakage Current (Rated $V_R$ , $T_C = 25^\circ\text{C}$ )	$I_R$	10	$\mu\text{A}$ dc
Max Junction Capacitance ( $V_R = 10$ V, $T_C = 25^\circ\text{C}$ )	$C_J$	50	pf

**REVERSE RECOVERY CHARACTERISTICS**

Characteristics	Symbol	Min	Typ	Max	Unit
Reverse Recovery Time ( $I_F = 500\text{ma}$ , $I_R = 1\text{A}$ , $I_{RR} = 250\text{ma}$ )	$t_{rr}$	-	35	40	ns

**PHYSICAL DIMENSIONS**



SHF1302 thru SHF1306

**KEY TO DIMENSIONS:**

(Inches)

- A = .250 Max.
- B = .260 Max.
- C = .048 - .052
- D = 1.00 Min.

**TYPICAL OPERATING CURVES**

Output Current vs Ambient Temperature

