

### III. Fast / Ultra Fast / Super Fast Recovery Rectifier

#### 3.0A Ultra Fast Recovery Rectifier UF5400~UF5408

(Package: DO-201AD)

<p><b>FEATURES</b></p> <ul style="list-style-type: none"> <li>• The plastic package carries Underwriters Laboratory Flammability Classification 94V-0</li> <li>• Ultra fast switching for high efficiency</li> <li>• Low reverse leakage</li> <li>• High forward surge current capability</li> <li>• High temperature soldering guaranteed : 250 /10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3 kg) tension</li> </ul> <p><b>MECHANICAL DATA</b></p> <ul style="list-style-type: none"> <li>• Case : JEDEC DO-201AD molded plastic body</li> <li>• Terminals : Plated axial leads, solderable per MIL-STD-750, Method 2026</li> <li>• Polarity : Color band denotes cathode end</li> <li>• Mounting Position : Any</li> <li>• Weight : 0.04 ounce, 1.10 grams</li> </ul>	<p>Case: DO-201AD Dimensions in inches and (millimeters)</p>
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### Ratings & Electrical Characteristics

Characteristic	Symbol	UF 5400	UF 5401	UF 5402	UF 5403	UF 5404	UF 5405	UF 5406	UF 5407	UF 5408	Units	
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	300	400	500	600	800	1000	Volts	
Maximum RMS voltage	$V_{RMS}$	35	70	140	210	280	350	420	560	700	Volts	
Maximum DC blocking voltage	$V_{DC}$	50	100	200	300	400	500	600	800	1000	Volts	
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_a = 55$	$I_o$	3.0									Amps	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	100.0									Amps	
Maximum instantaneous forward voltage at 3.0A	$V_F$	1.0			1.3		1.7			Volts		
Maximum DC reverse current $T_a = 25$ at rated DC blocking voltage $T_a = 100$	$I_R$	10.0					250.0					$\mu A$
Maximum reverse recovery time (Note 1)	$T_{rr}$	50					75					ns
Typical junction capacitance (Note 2)	$C_j$	45									Pf	
Typical thermal resistance (Note 3)	$R_{th-JA}$	20.0									/ W	
Operating junction and storage temperature range	$T_j, T_{stg}$	-65 to +150										

Note :

1. Reverse recovery conditions:  $I_F = 0.5A$ ,  $I_R = 1.0A$ ,  $I_{RR} = 0.25A$
2. Measured at 1.0 MHz and applied reverse voltage of 4.0 volts D.C.
3. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

# Ratings and Characteristic Curves of UF5400~UF5408

