

UF5400-UF5408

ULTRA FAST RECOVERY RECTIFIERS

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(@ 25°C ambient temperature unless noted otherwise)

Parameter	Symbol	UF5400	UF5401	UF5402	UF5403	UF5404	UF5405	UF5406	UF5407	UF5408	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	300	400	500	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	350	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	500	600	800	1000	V
Maximum average forward rectified current .375" lead length @ $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3.0									A
Peak forward surge current 8.3 ms single half sine wave superimposed on rated load @ $T_A = 55^\circ\text{C}$	I_{FSM}	150									A
Typical thermal resistance (1)	$R_{\theta JA}$	20									°C/W
	$R_{\theta JL}$	8.5									
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150									°C

ELECTRICAL CHARACTERISTICS

Parameter	Test Conditions	Symbol	UF5400	UF5401	UF5402	UF5403	UF5404	UF5405	UF5406	UF5407	UF5408	Unit
Maximum instantaneous forward voltage ⁽²⁾	3.0A	V_F	1.0				1.7				V	
Maximum DC reverse current at rated DC blocking voltage	$T_A = 25^\circ\text{C}$	I_R	10									μA
	$T_A = 100^\circ\text{C}$		75				200					
Maximum reverse recovery time @ $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{rr} = 0.25\text{A}$	$T_J = 25^\circ\text{C}$	t_{rr}	50				75				ns	
Typical junction capacitance	4.0V, 1 MHz	C_j	45				36				pF	

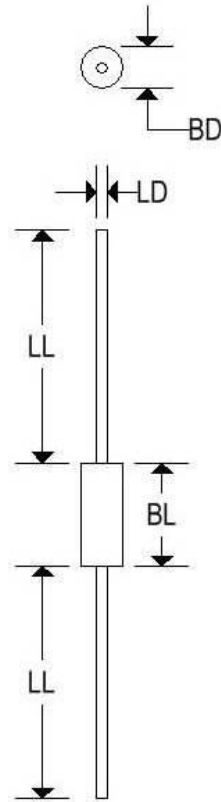
- Thermal resistance from junction to lead and from junction to ambient with 0.375" lead length, both leads attached to heatsink
- Pulse test: 300μs pulse width, 1% duty cycle

UF5400-UF5408

ULTRA FAST RECOVERY RECTIFIERS

MECHANICAL CHARACTERISTICS

Case:	DO-201A
Marking:	Alpha-Numeric
Polarity:	Cathode Band



	DO-201A			
	Inches		Millimeters	
	Min	Max	Min	Max
BD	0.190	0.260	4.826	6.604
BL	0.285	0.375	7.240	9.530
LD	0.048	0.052	1.219	1.321
LL	1.000	-	25.400	-

UF5400-UF5408

ULTRA FAST RECOVERY RECTIFIERS

Fig. 1 - Maximum Forward Current Derating Curve

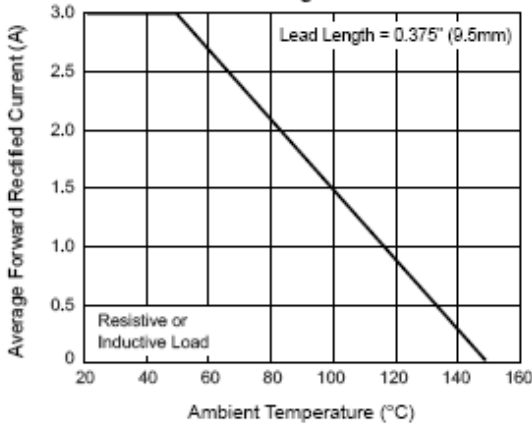


Fig. 2 - Maximum Non-Repetitive Peak Forward Surge Current

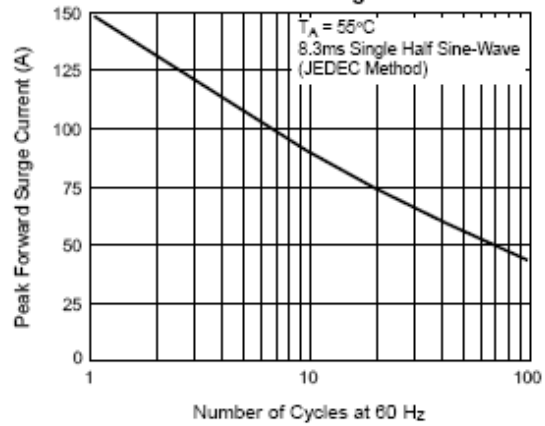


Fig. 3 - Typical Instantaneous Forward Characteristics

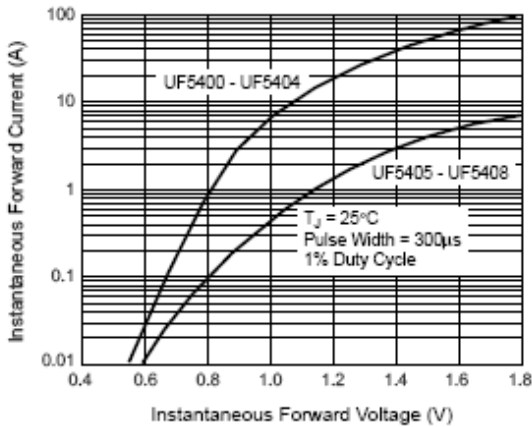


Fig. 4 - Typical Reverse Leakage Characteristics

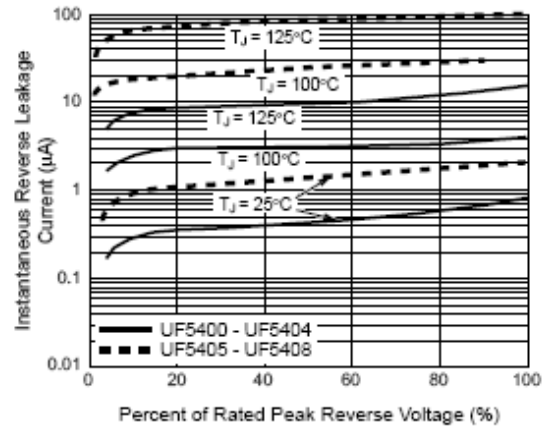


Fig. 5 - Typical Junction Capacitance

