

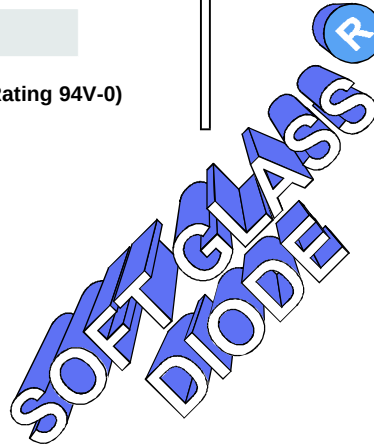
4 AMP ULTRAFAST RECOVERY DIODES

FEATURES

- PROPRIETARY **SOFT GLASS®** JUNCTION PASSIVATION FOR SUPERIOR RELIABILITY AND PERFORMANCE
- VOID FREE VACUUM DIE SOLDERING FOR MAXIMUM MECHANICAL STRENGTH AND HEAT DISSIPATION (Solder Voids: Typical $\leq 2\%$, Max. $\leq 10\%$ of Die Area)
- LOW SWITCHING NOISE
- LOW THERMAL RESISTANCE
- HIGH SWITCHING CAPABILITY
- LOW FORWARD VOLTAGE DROP

MECHANICAL DATA

- Case: JEDEC DO-27 molded plastic (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.04 Ounces (1.12 Grams)

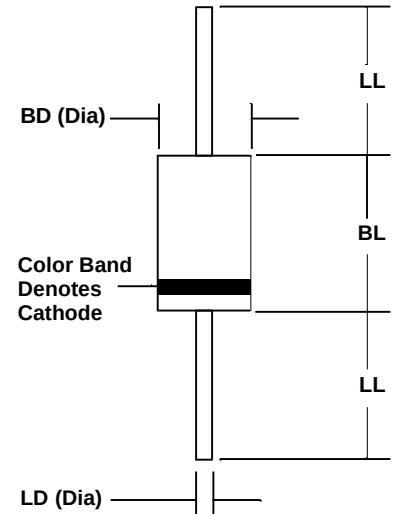


MECHANICAL SPECIFICATION

ACTUAL SIZE OF
DO-27 PACKAGE

SERIES UFR400 - UFR410

DO - 27



Sym	Minimum		Maximum	
	In	mm	In	mm
BL			0.365	9.28
BD			0.205	5.2
LL	1.00	25.4		
LD	0.048	1.2	0.052	1.3

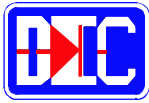
MAXIMUM RATINGS & ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive loads, derate current by 20%.

PARAMETER (TEST CONDITIONS)	SYMBOL	RATINGS										UNITS
Series Number		UFR 400	UFR 401	UFR 402	UFR 403	UFR 404	UFR 406	UFR 408	UFR 409	UFR 410		
Maximum DC Blocking Voltage	V _{RM}	50	100	200	300	400	600	800	900	1000	VOLTS	
Maximum RMS Voltage	V _{RMS}	35	70	140	210	280	420	560	630	700		
Maximum Peak Recurrent Reverse Voltage	V _{RRM}	50	100	200	300	400	600	800	900	1000		
Average Forward Rectified Current @ T _A = (as shown)	I _O	4 @T _A =80°C					4 @T _A =55°C				AMPS	
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I _{FSM}	200										
Maximum Forward Voltage at: 3-Amps DC 4-Amps DC	V _{FM}	1.20 1.25					1.70 1.85				VOLTS	
Maximum Average DC Reverse Current At Rated DC Blocking Voltage @ T _J = 25 °C @ T _J = 125 °C	I _{RM}	5 50					10 50				μA	
Typical Thermal Resistance: Junction to Lead Junction to Air	R _{θJL} R _{θJA}	7.5 18.0										°C/W
Typical Junction Capacitance (Note 1)	C _J	45										pF
Maximum Reverse Recovery Time (I _F =0.5A, I _R =1A, I _{RR} =0.25A)	T _{RR}	50			60			75			nSec	
Junction Operating and Storage Temperature Range	T _J , T _{STG}	-65 to +175										°C

NOTES: (1) Measured at 1MHz and an applied reverse voltage of 4 volts.

3.01 ufr400



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RATING & CHARACTERISTIC CURVES FOR SERIES UFR400 - UFR410

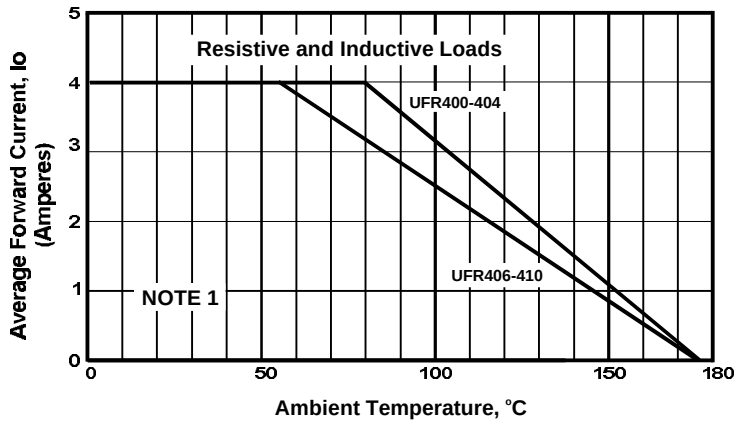


FIGURE 1. FORWARD CURRENT DERATING CURVE

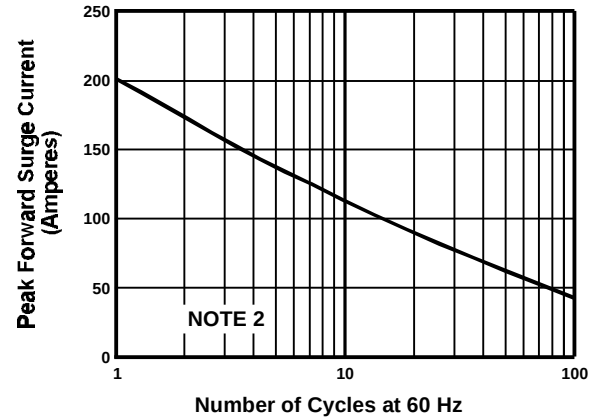


FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

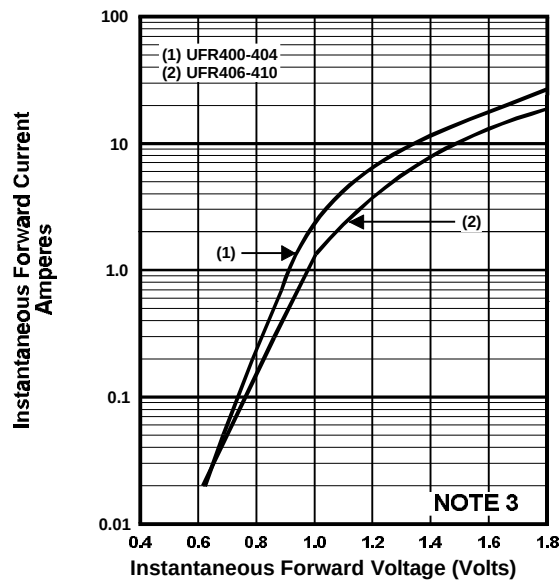


FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

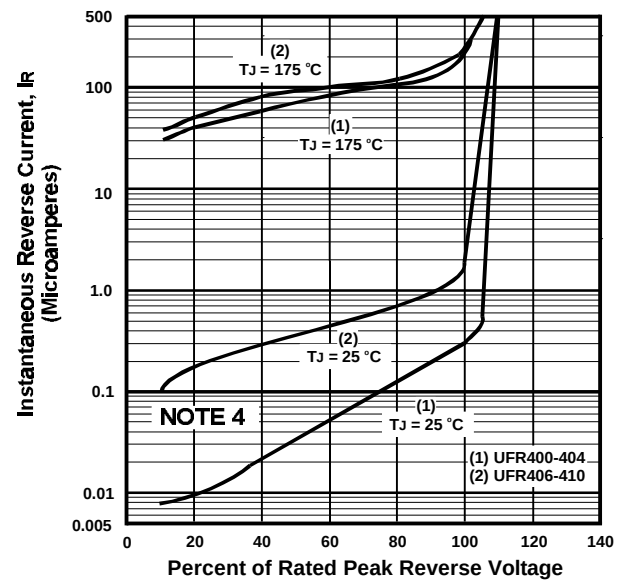


FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

NOTES

- (1) Lead Length = 0.375" (9.5mm)
- (2) JEDEC Method, 8.3 mSec. Single Half Sine Wave
- (3) $T_J = 25^\circ\text{C}$, Pulse Width = 300 μSec , 2.0% Duty Cycle
- (4) These Curves Are Typical For The Highest Voltage Diode in The Voltage Grouping.

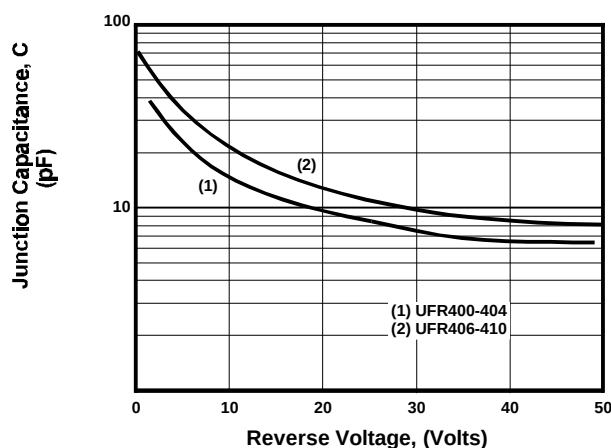


FIGURE 5. TYPICAL JUNCTION CAPACITANCE