DIOTEC ELECTRONICS CORP
18020 Hobart Blvd., Unit B
Gardena, CA 90248 U.S.A
Tel.: (310) 767-1052 Fax: (310) 767-7958

Data Sheet No. SESA-600-1C

6 AMP ULTRAFAST RECOVERY DIODES

FEATURES

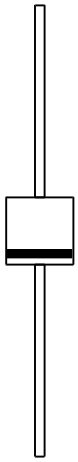
- Low switching noise
- Low forward voltage drop
- Low thermal resistance
- High switching capability
- High surge capability
- High reliability

MECHANICAL DATA

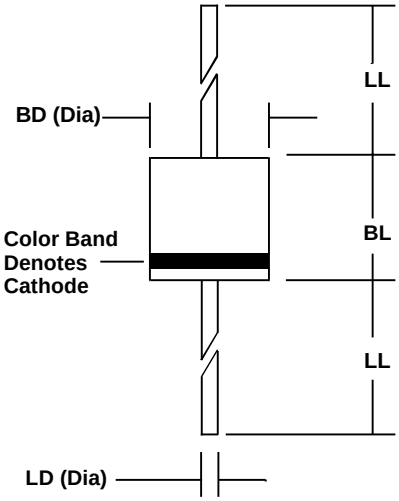
- Case: Molded epoxy (U/L Flammability Rating 94V-0)
- Terminals: Plated axial leads
- Solderability: Per MIL-STD 202 Method 208 guaranteed
- Polarity: Color band denotes cathode
- Mounting Position: Any
- Weight: 0.07 Ounces (2.1 Grams)

MECHANICAL SPECIFICATION

ACTUAL SIZE OF UFR600 PACKAGE



SERIES UFR600 - UFR608



Sym	Minimum		Maximum	
	In	mm	In	mm
BL	0.340	8.6	0.360	9.1
BD	0.340	8.6	0.360	9.1
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 600	UFR 601	UFR 602	UFR 603	UFR 604	UFR 606	UFR 608	
Maximum DC Blocking Voltage	V_{RM}	50	100	200	300	400	600	800	VOLTS
Maximum RMS Voltage	V_{RMS}	35	70	140	210	280	420	560	
Maximum Peak Recurrent Reverse Voltage	V_{RRM}	50	100	200	300	400	600	800	
Average Forward Rectified Current @ T_A = 55 °C	I_O	6							AMPS
Peak Forward Surge Current (8.3mS single half sine wave superimposed on rated load)	I_{FSM}	300							
Maximum Forward Voltage at 6 Amps DC	V_{FM}	1.25					1.4		VOLTS
Maximum Average DC Reverse Current @ T_C = 25 °C At Rated DC Blocking Voltage @ T_C = 100 °C	I_{RM}	10 200							µA
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	10							°C/W
Typical Junction Capacitance (Note 1)	C_J	100							pF
Maximum Reverse Recovery Time (I_F=0.5A, I_R=1A, I_{RR}=0.25A)	T_{RR}	60			75		90		nSec
Junction Operating and Storage Temperature Range	T_J, T_{STG}	-65 to +150							°C

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

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6 AMP ULTRAFAST RECOVERY DIODES

RATING & CHARACTERISTIC CURVES FOR SERIES UFR600 - UFR608

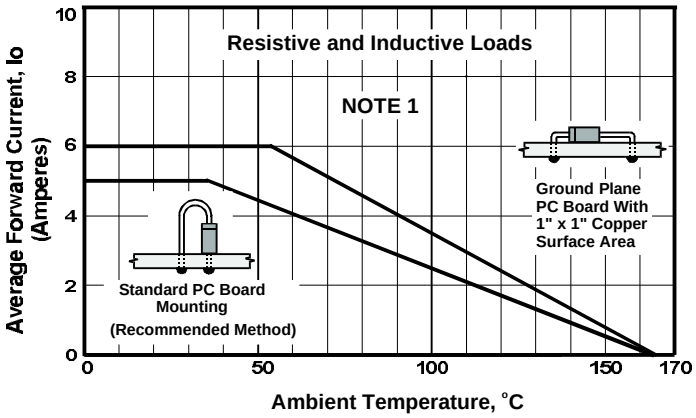

FIGURE 1. FORWARD CURRENT DERATING CURVE

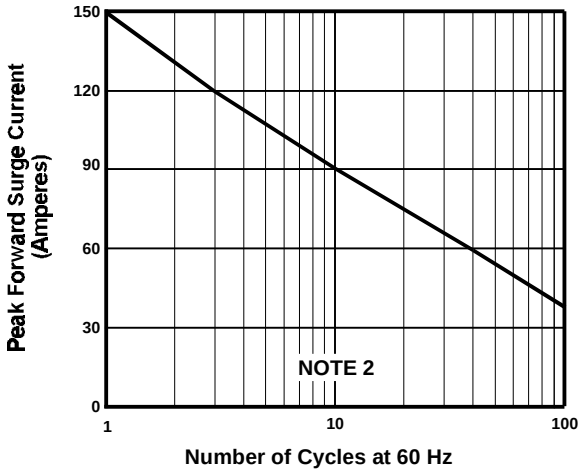

FIGURE 2. MAXIMUM NON-REPETITIVE SURGE CURRENT

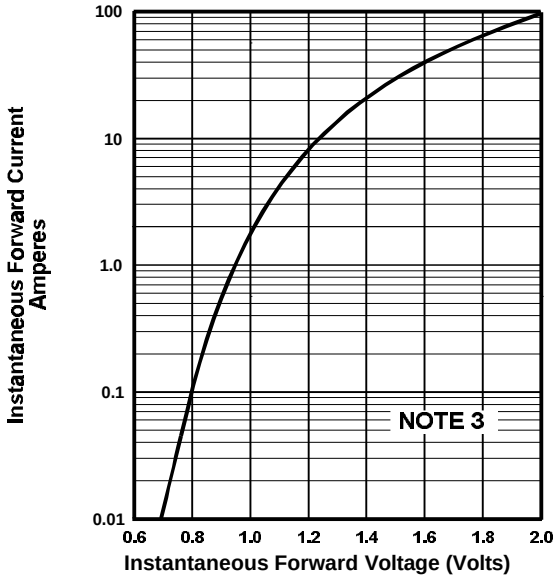

FIGURE 3. TYPICAL FORWARD CHARACTERISTICS

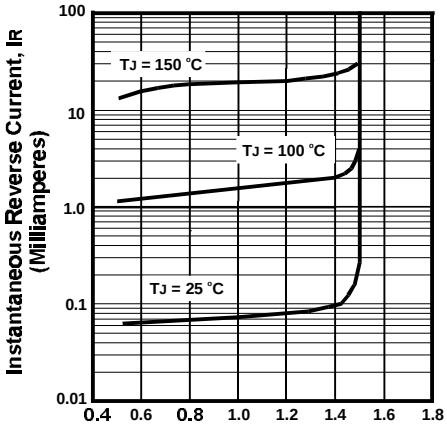

FIGURE 4. TYPICAL REVERSE CHARACTERISTICS

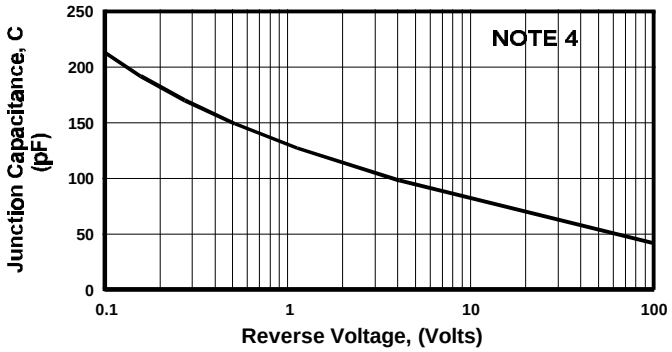

FIGURE 5. TYPICAL JUNCTION CAPACITANCE

NOTES

(1) Single Phase, Half Wave, 60 Hz

(2) JEDEC Method, 8.3 mSec. Single Half Sine Wave;

(3) T_J = 25 °C, Pulse Width = 300 μSec, 2.0% Duty Cycle

(4) T_J = 25 °C, f = 1 MHz, V_{SIG} = 50 mV P-P