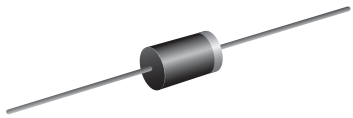
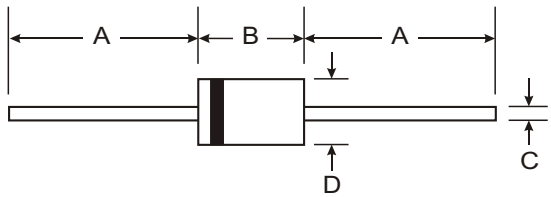
RFC2K - RFC4K

HIGH VOLTAGE RECTIFIER DIODES

VOLTAGE RANGE: 2500 - 4000V
CURRENT: 0.2 A





Features

- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Easily cleaned with alcohol,Isopropanol
- and similar solvents

Mechanical Data

- Case: D O - 4 1 Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.34 grams (approx.)
- Mounting Position: Any
- Marking: Type Number

RoHS COMPLIANT

DO-41		
Dim	**Min**	**Max**
A	25.40	—
B	4.06	5.21
C	0.71	0.864
D	2.00	2.72
All Dimensions in mm		

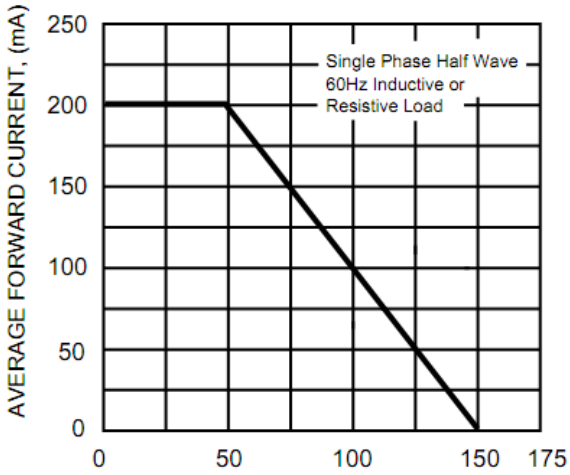
Maximum Ratings and Electrical Characteristics T_A = 25°C unless otherwise specified

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

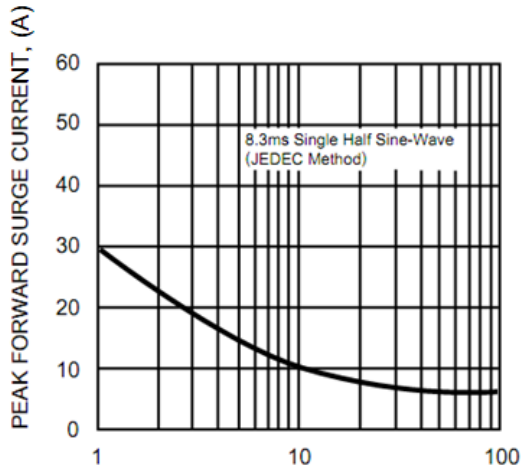
Characteristic		Symbols	RFC2K	RFC3K	RFC4K	Units
Peak Repetitive Reverse Voltage Working Peak Reverse Voltage DC Blocking Voltage		V_{RRM} V_{RWM} V_R	2000	3000	4000	V
RMS Reverse Voltage		$V_{R(RSM)}$	1400	2100	2800	V
Average Output Current (Note 1)	@ T_L = 50°C	I_O	200			mA
Non-Repetitive Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	30			A
Forward Voltage	@ I_F= 200mA	V_{FM}	4.0	5.0	6.5	V
Peak Reverse Leakage Current at Rated DC Blocking Voltage	@ T_A=25°C	I_{RM}	5.0			uA
	@ T_A=100°C		100			
Typical Junction Capacitance (Note 2)		C_J	30			pF
Maximum Reverse Recovery Time (Note 3)		T_{RR}	500			nS
Operating and Storage Temperature Range		T_J, T_{STG}	-65 to +150			°C

Notes: 1. Valid provided that leads are kept at ambient temperature at a distance of 9.5mm from the case.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Test Conditions: I_F = 0.5A, I_R = 1.0A, I_{RR} = 0.25A

TYPICAL FORWARD CURRENT DERATING CURVE

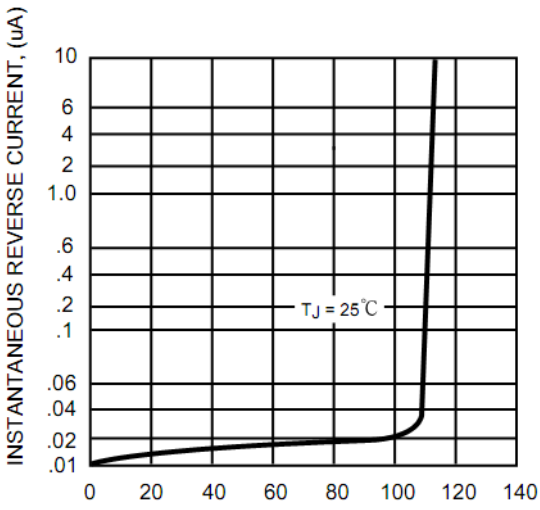


MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

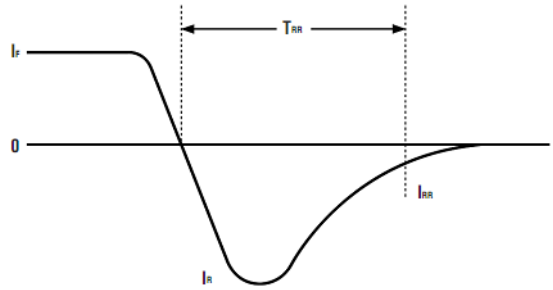


TYPICAL REVERSE CHARACTERISTICS

PERCENT OF RATED PEAK REVERSE VOLTAGE, (%)



REVERSE RECOVERY MEASUREMENT WAVEFORM



Typical data capture points: I_F =0.5I_R , I_R,I_{RR} =0.25I_R
I_R is typically the rated average forward current maximum (I_{FAVM}) of the D.U.T