



R4000F - R5000F

HIGH VOLTAGE RECTIFIER DIODES

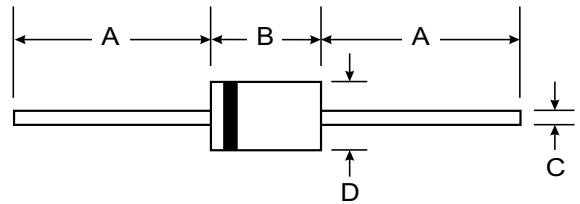
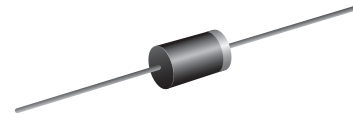
VOLTAGE RANGE: 4000 - 5000V
CURRENT: 0.2 A

Features

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

Mechanical Data

- Case: DO-15, Molded Plastic
- Terminals: Plated Leads Solderable per MIL-STD-202, Method 208
- Polarity: Cathode Band
- Weight: 0.40 grams (approx.)
- Mounting Position: Any
- Marking: Type Number



DO-15		
Dim	Min	Max
A	25.40	—
B	5.50	7.62
C	0.686	0.889
D	2.60	3.60
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	Symbol	R4000F	R5000F	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	4000	5000	V
Maximum RMS voltage	V _{RMS}	2800	3500	V
Maximum DC blocking voltage	V _{DC}	4000	5000	V
Maximum average forward rectified current 9.5mm lead length, @T _A =75°C	I _{F(AV)}	0.2		A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T _J =125°C	I _{FSM}	30.0		A
Maximum instantaneous forward voltage @ 0.2A	V _F	6.5		V
Maximum reverse current @T _A =25°C at rated DC blocking voltage @T _A =100°C	I _R	5.0	100.0	μA
Maximum reverse recovery time (Note1)	t _{rr}	500		ns
Typical junction capacitance (Note2)	C _J	15		pF
Operating junction temperature range	T _J	- 55 ----- + 150		°C
Storage temperature range	T _{STG}	- 55 ----- + 150		°C

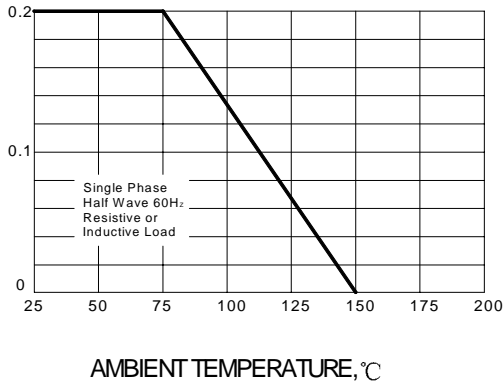
NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.



AVERAGE FORWARD RECTIFIED CURRENT
AMPERES

FIG.1 – FORWARD DERATING CURVE



PEAK FORWARD SURGE CURRENT
AMPERES

FIG.2 – PEAK FORWARD SURGE CURRENT

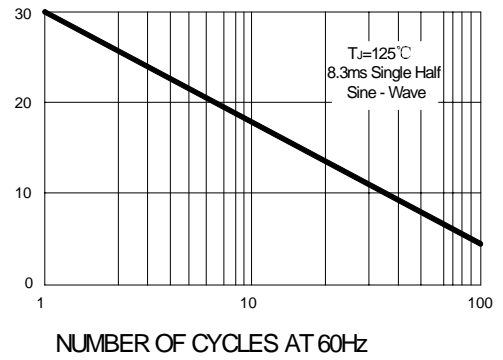
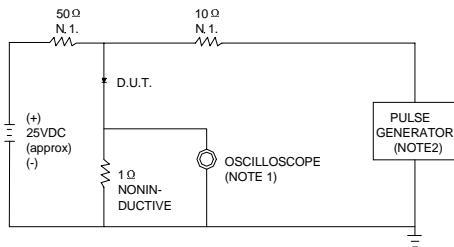
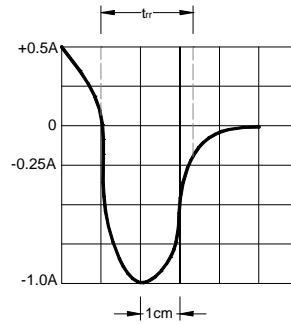


FIG.3 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. RISE TIME = 7ns MAX. INPUT IMPEDANCE = 1MΩ, 22pF.
2. RISE TIME = 10ns MAX. SOURCE IMPEDANCE = 50 Ω.



SET TIME BASE FOR 50/100 ns/cm