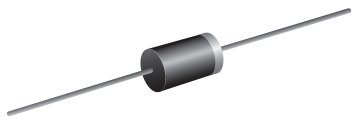
R4000F - R5000F

HIGH VOLTAGE RECTIFIER DIODES

VOLTAGE RANGE: 4000 - 5000V
CURRENT: 0.2 A



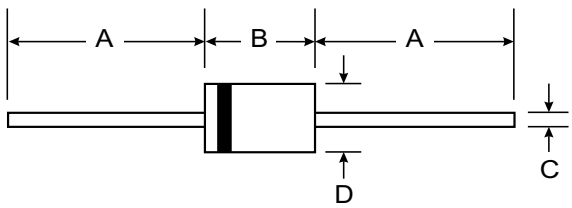
Features

- 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

RoHS COMPLIANT



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℃	$I_{F(AV)}$	0.2		A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load @T_J=125℃	I_{FSM}	30.0		A
Maximum instantaneous forward voltage @ 0.2A	V_F	6.5		V
Maximum reverse current @T_A=25℃	I_R	5.0		μA
at rated DC blocking voltage @T_A=100℃		100.0		
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		℃
Storage temperature range	T_{STG}	- 55 ---- + 150		℃

NOTE: 1. Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A.
2. Measured at 1.0MH$_Z$ and applied reverse voltage of 4.0V DC.

FIG.1 – FORWARD DERATING CURVE

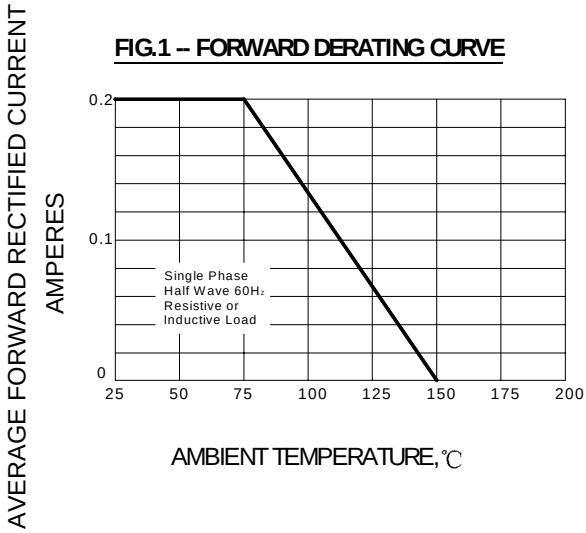


FIG.2 – PEAK FORWARD SURGE CURRENT

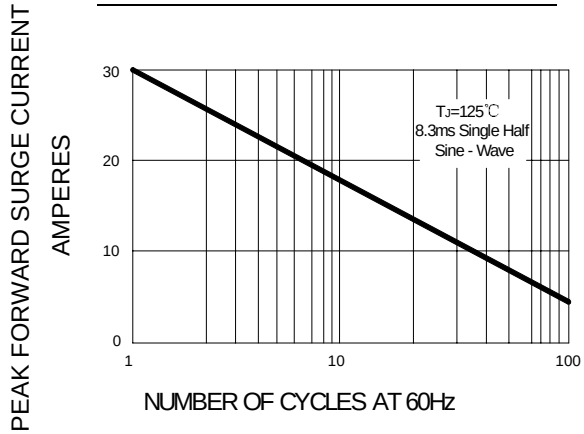
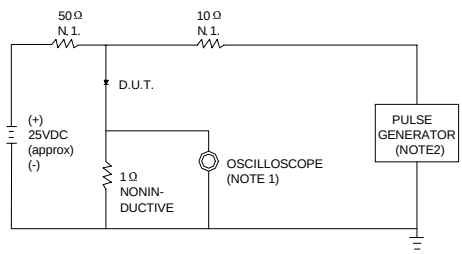
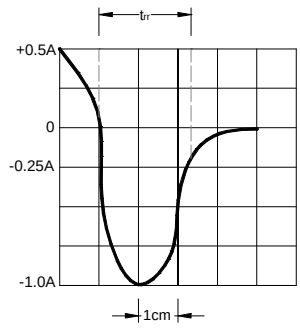


FIG.3 – TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC





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