

R2000-R5000 General Purpose Rectifier
Feature

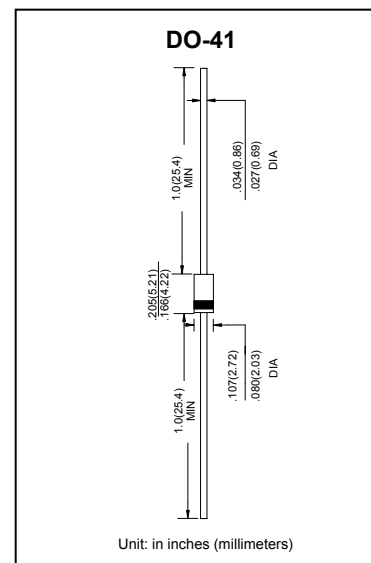
- I_o 0.2A
- V_{RRM} 2000V-5000V
- Low reverse leakage
- High surge current capability

Application

- Rectifier

Marking

- RX000
X : From 2 To 5


ABSOLUTE MAXIMUM RATINGS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	R				Unit
		2000	3000	4000	5000	
Repetitive Peak Reverse Voltage	V_{RRM}	2000	3000	4000	5000	V
Maximum RMS Voltage	V_{RMS}	1400	2100	2800	3500	V
Average Forward Current 60Hz Half-sine wave, Resistance load, $T_a=50^\circ\text{C}$	$I_{F(AV)}$	0.2				A
Non-repetitive Peak Forward Surge Current 60Hz Half-sine wave, 1 cycle, $T_a=25^\circ\text{C}$	I_{FSM}	30				A
Junction Temperature	T_J	$-55 \sim +125$				$^\circ\text{C}$
Storage Temperature	T_{STG}	$-55 \sim +150$				$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	Test Condition		R2000	R3000	R4000	R5000	Unit
Peak Forward voltage	V _{FM}	I _{FM} =0.2A		3	4	5		V
Peak Reverse Current	I _{RRM1}	V _{RM} =V _{RRM}	T _a =25℃	5				uA
	I _{RRM2}		T _a =125℃	50				uA
Thermal Resistance (Typical)	R _{θJ-A}	Between junction and ambient		130				℃/W
	R _{θJ-L}	Between junction and lead		55				℃/W
Typical Junction capactiance	C _J	Measured at 1.0MHz and applied reverse voltage of 4.0 volts.		25				pF
Maximum reverse recovery	t _{rr}	I _F =0.5A, I _R =1A, I _{rr} =0.25A		2.5				us

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

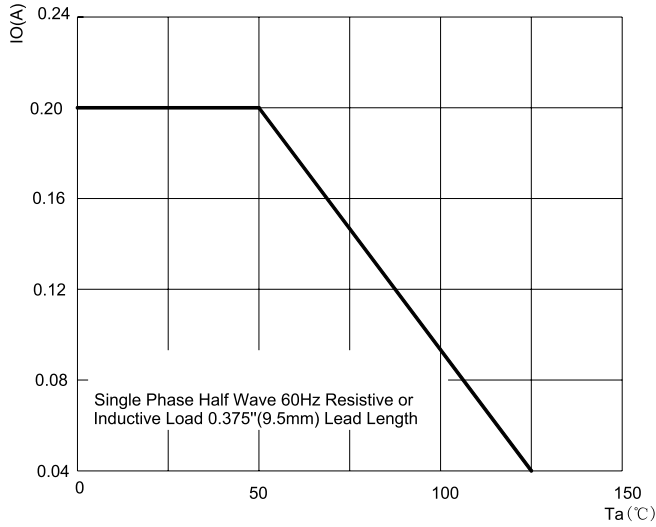


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

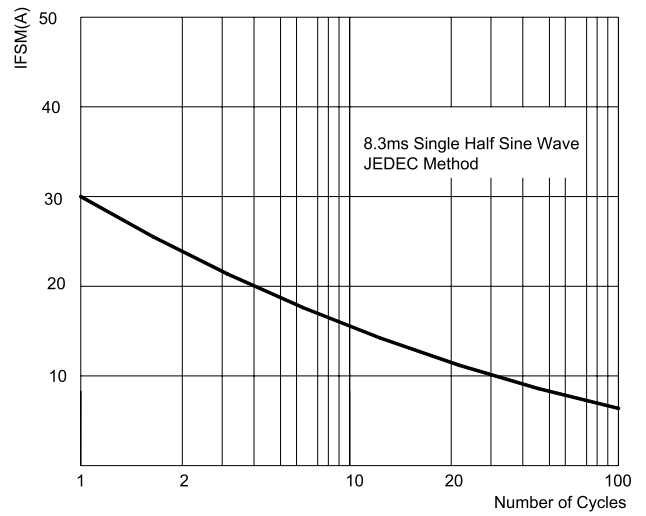


FIG.3: TYPICAL FORWARD CHARACTERISTICS

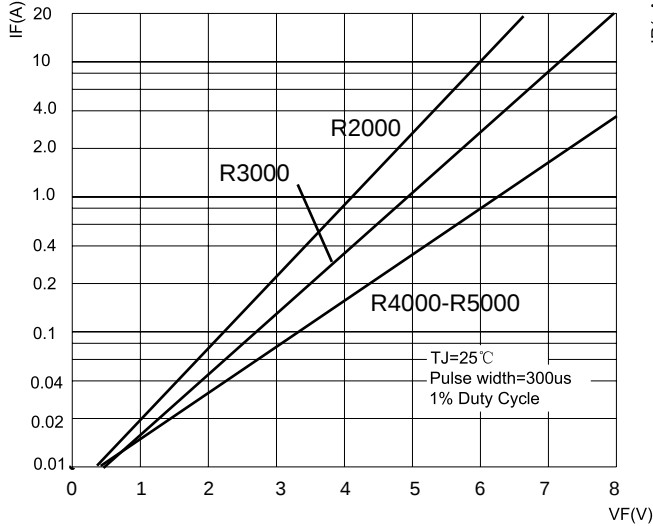


FIG.4: TYPICAL REVERSE CHARACTERISTICS

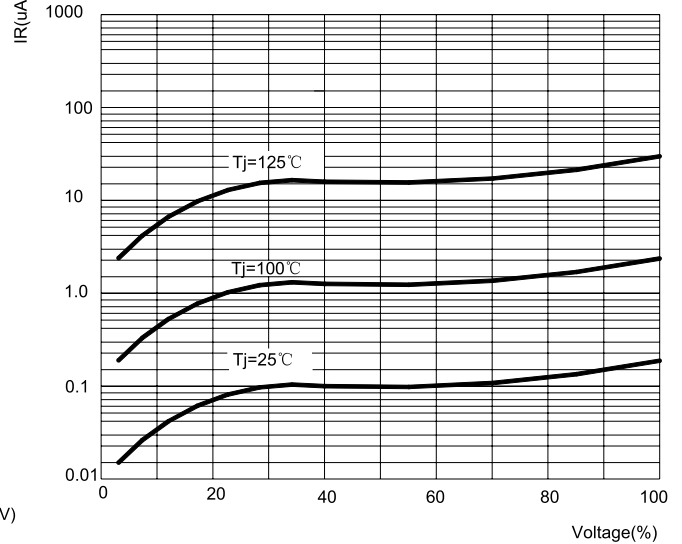


FIG5: Typical Junction Capacitance

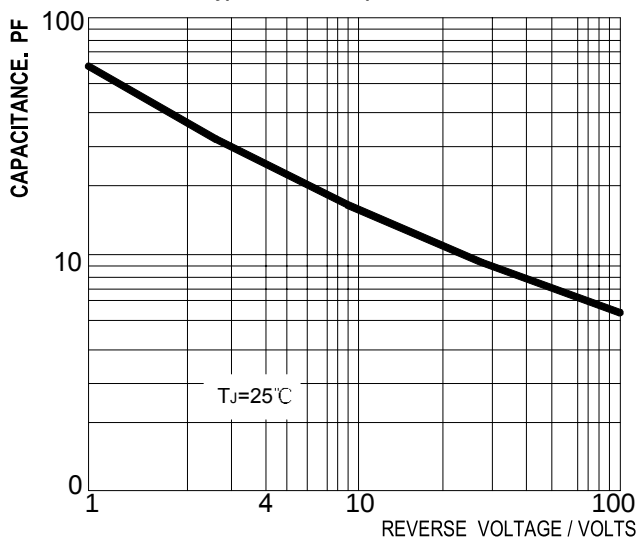


FIG.6: Diagram of circuit and Testing wave form of reverse recovery time

