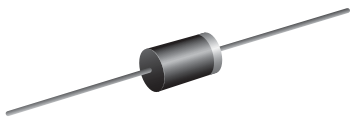
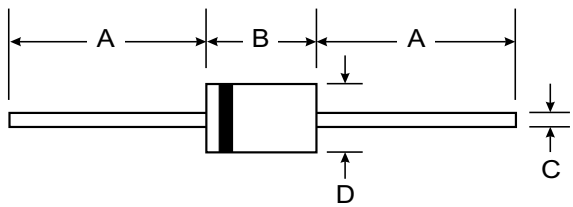
RU3YX - RU3C

HIGH EFFICENCY RECTIFIER DIODES

VOLTAGE RANGE: 100 - 1000V
CURRENT: 1.1-2.0 A





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		

Features

- Low cost
- Diffused junction
- Low leakage
- Low forward voltage drop
- Easily cleaned with freon, alcohol, Isopropand and similar solvents
- The plastic material carries U/L recognition 94V-0

Mechanical Data

- Case : DO-15 Molded plastic
- Epoxy : UL94V-O rate flame retardant
- Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
- Polarity : Color band denotes cathode end
- Mounting position : Any
- Weight : 0.465 gram

RoHS COMPLIANT

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%.

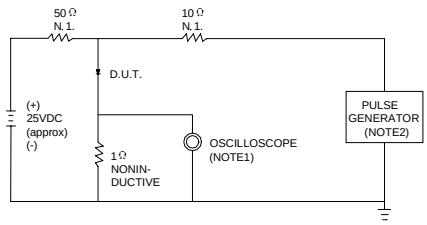
Characteristic	Symbol	RU3YX	RU3	RU3A	RU3B	RU3C	Unit
Maximum peak repetitive reverse voltage	V_{RRM}	100	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	70	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	100	400	600	800	1000	V
Maximum average forward rectified current 9.5mm lead length, @T_A=75℃	$I_{F(AV)}$	2.0	1.5		1.1	1.5	A
Peak forward surge current 10ms single half-sine-wave superimplsed on rated load @T_J=125℃	I_{FSM}	50.0	20.0				A
Maximum instantaneous forward voltage @ I_F=$I_{F(AV)}$	V_F	0.95	1.5			2.5	V
Maximum reverse current @T_A=25℃	I_R	10.0					μA
at rated DC blocking voltage @T_A=100℃		300.0	400.0				
Maximum reverse recovery time (Note1)	t_{rr}	50	100				ns
Typical junction capacitance (Note2)	C_J	50		30			pF
Typical thermal resistance (Note3)	$R_{\theta JL}$	12					℃/W
Operating junction temperature range	T_J	- 55 ----- + 150					℃
Storage temperature range	T_{STG}	- 55 ----- + 150					℃

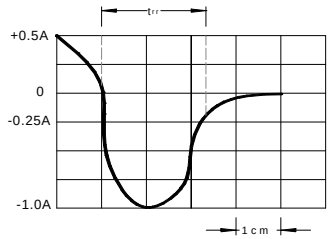
NOTE: 1.Measured with I_F=0.5A, I_R=1A, I_{rr}=0.25A

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

3. Thermal resistance junction to ambient.

FIG.1 – 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 10/20 ns/cm

FIG.2 – TYPICAL FORWARD CHARACTERISTIC

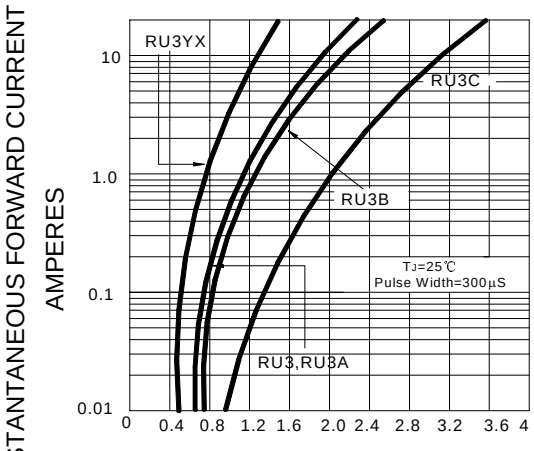


FIG.3 – FORWARD DERATING CURVE

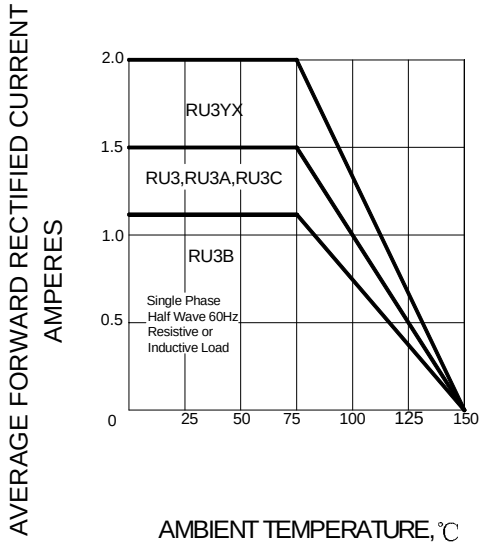


FIG.4 – PEAK FORWARD SURGE CURRENT

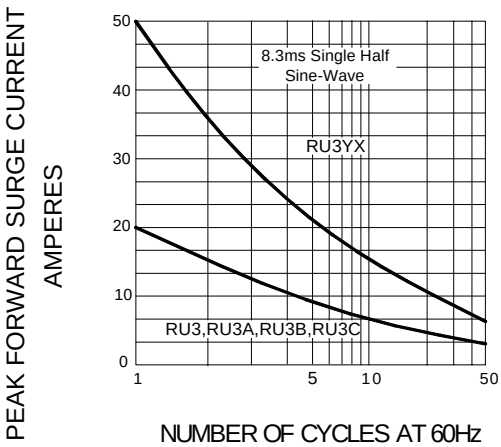


FIG.5–TYPICAL JUNCTION CAPACITANCE