

RECTIFIERS

Fast Recovery, 2Amp to 4Amp

UTR2305-UTR2360
UTR3305-UTR3360
UTR4305-UTR4360

2

FEATURES

- Continuous Rating: to 4A
- Controlled Avalanche
- Surge Rating: to 100A
- PIV: to 600V
- Miniature Package

DESCRIPTION

Small size and high surge capability make this series of power switching rectifiers desirable for power supplies where size, weight and reliability are important.

ABSOLUTE MAXIMUM RATINGS

Peak Inverse Voltage	2 Amp Series	3 Amp Series	4 Amp Series
50V	UTR2305	UTR3305	UTR4305
100V	UTR2310	UTR3310	UTR4310
200V	UTR2320	UTR3320	UTR4320
400V	UTR2340	UTR3340	UTR4340
500V	UTR2350	UTR3350	UTR4350
600V	UTR2360	UTR3360	UTR4360

Maximum Average D.C. Output Current

@ $T_A = 25^\circ\text{C}$

2 AMP
SERIES

2.0A

3 AMP
SERIES

3.0A

4 AMP
SERIES

4.0A

@ $T_A = 100^\circ\text{C}$

1.0A

1.5A

2.0A

Non-Repetitive Sinusoidal

Surge Current (8.3ms)

60A

80A

100A

Operating Temperature Range

-195°C to $+175^\circ\text{C}$

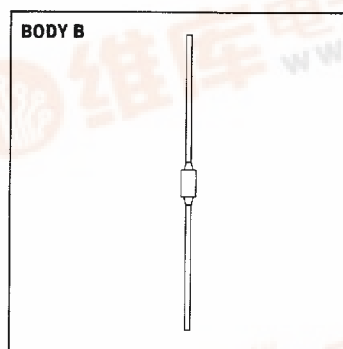
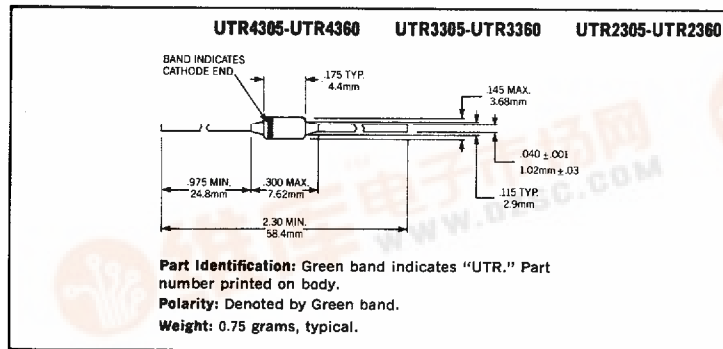
Storage Temperature Range

-195°C to $+200^\circ\text{C}$

Thermal Resistance

See lead temperature derating curve

MECHANICAL SPECIFICATIONS



THESE DEVICES ALSO AVAILABLE IN SURFACE MOUNT PACKAGE. SEE SECTION 10

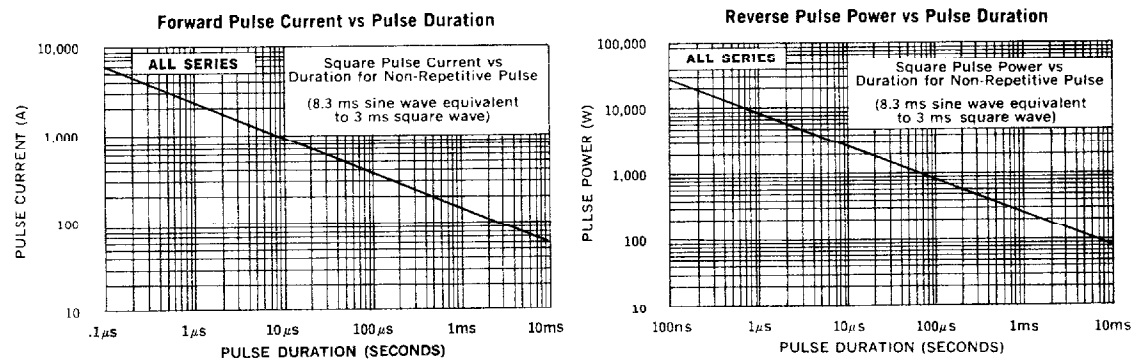
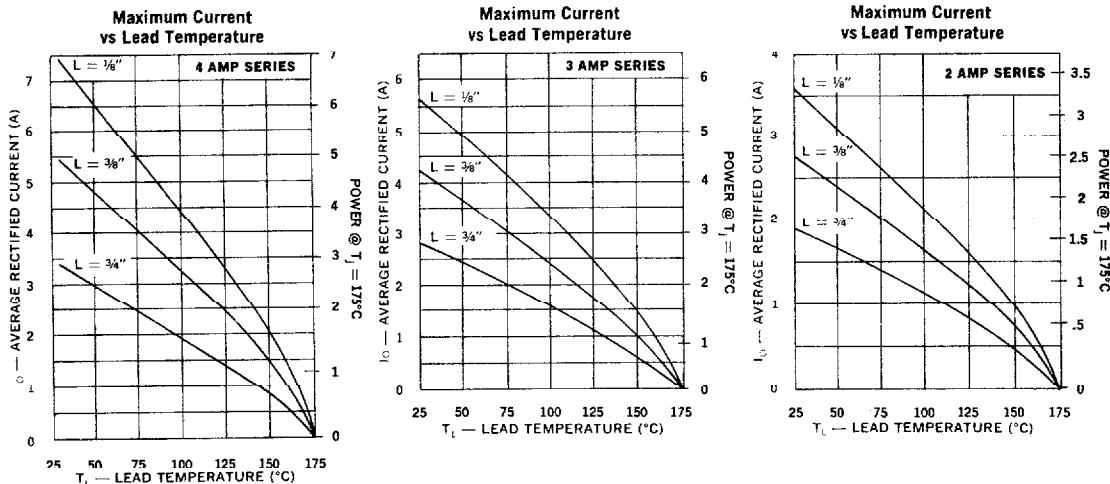
Microsemi Corp.
Watertown
The diode experts



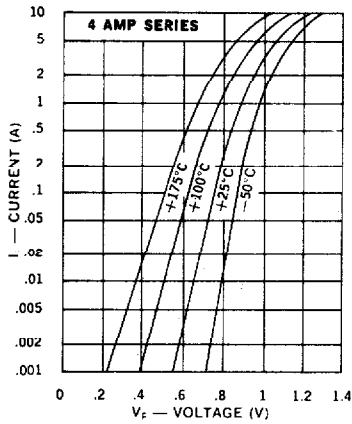
ELECTRICAL SPECIFICATIONS (at 25°C unless noted)

Type	PIV	Maximum Forward Voltage Drop	Maximum Leakage Current @ PIV		Maximum Reverse Recovery Time*	Maximum Junction Capacitance @ 25°C	
			25°C	100°C		0V	-10V
UTR4305	50V	1.1V @ 4A	5 μ A	100 μ A	250ns	600pf	240pf
UTR4310	100V				250ns	400pf	160pf
UTR4320	200V				250ns	320pf	128pf
UTR4340	400V				400ns	240pf	96pf
UTR4350	500V				400ns	200pf	80pf
UTR4360	600V				400ns	160pf	64pf
UTR3305	50V	1.1V @ 3A	5 μ A	100 μ A	250ns	600pf	240pf
UTR3310	100V				250ns	400pf	160pf
UTR3320	200V				250ns	320pf	128pf
UTR3340	400V				300ns	240pf	96pf
UTR3350	500V				350ns	200pf	80pf
UTR3360	600V				400ns	160pf	64pf
UTR2305	50V	1.1V @ 2A	5 μ A	100 μ A	250ns	600pf	240pf
UTR2310	100V				250ns	400pf	160pf
UTR2320	200V				250ns	320pf	128pf
UTR2340	400V				300ns	240pf	96pf
UTR2350	500V				350ns	200pf	80pf
UTR2360	600V				400ns	160pf	64pf

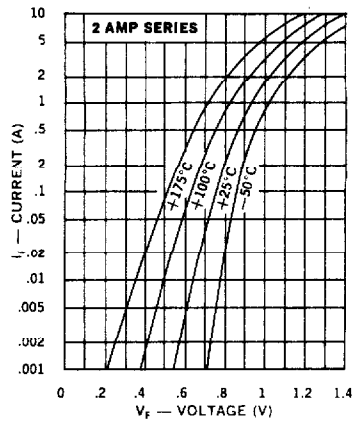
*Recovery time is measured from 1A to 1A recovering to 0.5A.



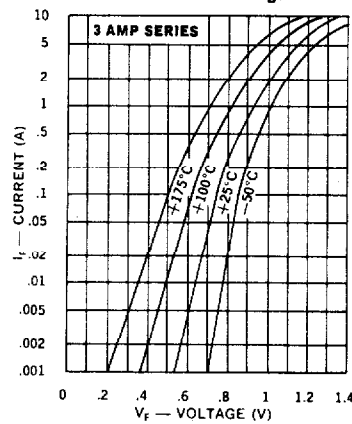
Typical Forward Current vs Forward Voltage



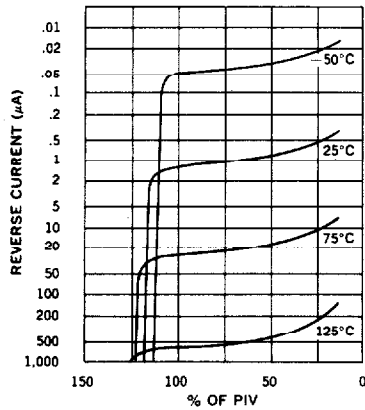
Typical Forward Current vs Forward Voltage



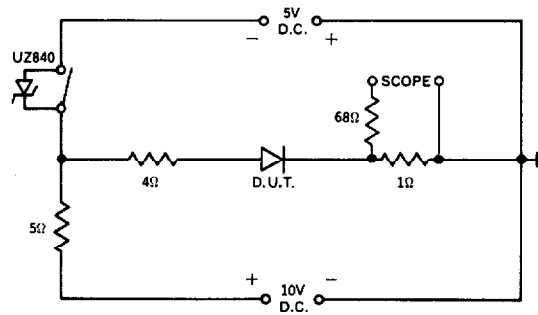
Typical Forward Current vs Forward Voltage



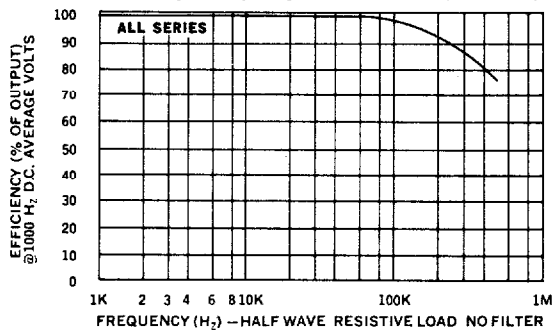
Typical Reverse Current vs PIV



Reverse Recovery Circuit



Efficiency vs Frequency at Rated Current (Sine Wave)



Allowable Forward Surge vs Number of Cycles

