

15A, 400V - 600V Ultrafast Diodes

The MUR1540, MUR1560, RURP1540, and RURP1560 are ultrafast diodes ($t_{rr} < 55\text{ns}$) with soft recovery characteristics. They have a low forward voltage drop and are of planar, silicon nitride passivated, ion-implanted, epitaxial construction.

These devices are intended for use as energy steering/clamping diodes and rectifiers in a variety of switching power supplies and other power switching applications. Their low stored charge and ultrafast recovery with soft recovery characteristics minimizes ringing and electrical noise in many power switching circuits, thus reducing power loss in the switching transistor.

Formerly developmental type TA09905.

Ordering Information

PART NUMBER	PACKAGE	BRAND
MUR1540	TO-220AC	MUR1540
RURP1540	TO-220AC	RURP1540
MUR1560	TO-220AC	MUR1560
RURP1560	TO-220AC	RURP1560

NOTE: When ordering, use the entire part number

Symbol



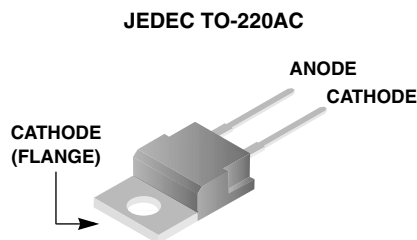
Features

- Ultrafast with Soft Recovery <55ns
- Operating Temperature 175°C
- Reverse Voltage Up to 600V
- Avalanche Energy Rated
- Planar Construction

Applications

- Switching Power Supply
- Power Switching Circuits
- General Purpose

Packaging



Absolute Maximum Ratings $T_C = 25^\circ\text{C}$, Unless Otherwise Specified

	MUR1540 RURP1540	MUR1560 RURP1560	UNITS
Peak Repetitive Reverse Voltage V_{RRM}	400	600	V
Working Peak Reverse Voltage V_{RWM}	400	600	V
DC Blocking Voltage V_R	400	600	V
Average Rectified Forward Current $I_{F(AV)}$ ($T_C = 145^\circ\text{C}$)	15	15	A
Repetitive Peak Surge Current I_{FRM} (Square Wave 20kHz)	30	30	A
Nonrepetitive Peak Surge Current I_{FSM} (Halfwave 1 Phase 60Hz)	200	200	A
Maximum Power Dissipation P_D	100	100	W
Avalanche Energy (See Figures 7 and 8) E_{AVL}	20	20	mJ
Operating and Storage Temperature T_{STG}, T_J	-55 to 175	-55 to 175	°C