

**75A, 1200V Hyperfast Diode**

The RHRG75120 is a hyperfast diode with soft recovery characteristics ( $t_{rr} < 85\text{ns}$ ). It has half the recovery time of ultrafast diodes and is silicon nitride passivated ion-implanted epitaxial planar construction.

This device is intended for use as a freewheeling/clamping diode and rectifier in a variety of high frequency switching power supplies and other power switching applications. Its low stored charge and hyperfast soft recovery characteristic minimize ringing and electrical noise in many power switching circuits, thus reducing power loss in the switching transistors.

Formerly developmental type TA49042.

**Ordering Information**

PART NUMBER	PACKAGE	BRAND
RHRG75120	TO-247	RHRG75120

NOTE: When ordering, use the entire part number.

**Symbol**



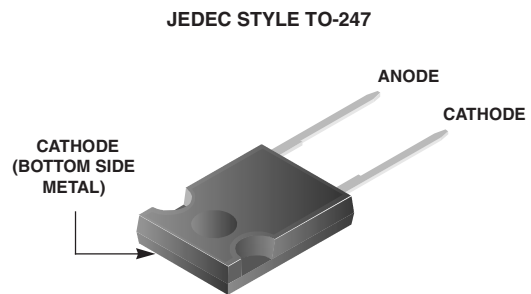
**Features**

- Hyperfast with Soft Recovery . . . . . <85ns
- Operating Temperature . . . . . 175°C
- Reverse Voltage . . . . . 1200V
- Avalanche Energy Rated
- Planar Construction

**Applications**

- Switching Power Supplies
- Power Switching Circuits
- General Purpose

**Packaging**



**Absolute Maximum Ratings**  $T_C = 25^\circ\text{C}$

	RHRG75120	UNITS
Peak Repetitive Reverse Voltage . . . . . $V_{RRM}$	1200	V
Working Peak Reverse Voltage . . . . . $V_{RWM}$	1200	V
DC Blocking Voltage . . . . . $V_R$	1200	V
Average Rectified Forward Current . . . . . $I_{F(AV)}$ ( $T_C = 42^\circ\text{C}$ )	75	A
Repetitive Peak Surge Current . . . . . $I_{FRM}$ (Square Wave, 20kHz)	150	A
Nonrepetitive Peak Surge Current . . . . . $I_{FSM}$ (Halfwave, 1 Phase, 60Hz)	500	A
Maximum Power Dissipation . . . . . $P_D$	190	W
Avalanche Energy (See Figures 7 and 8) . . . . . $E_{AVL}$	50	mJ
Operating and Storage Temperature . . . . . $T_{STG}, T_J$	-65 to 175	°C