UNISONIC TECHNOLOGIES CO., LTD

U30D40D

Preliminary

FAST RECOVERY EPITAXIAL DIODE

SWITCHMODE DUAL ULTRAFAST POWER RECTIFIER

DESCRIPTION

The UTC **U30D40D** is a switchmode dual ultrafast power rectifier, it uses UTC's advanced technology to provide customers with high current capability, low forward voltage drop and high switching speed, etc.

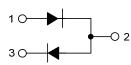
The UTC **U30D40D** is suitable for switching power supplies, inverters and as free wheeling diodes, etc.

1 TO-247

■ FEATURES

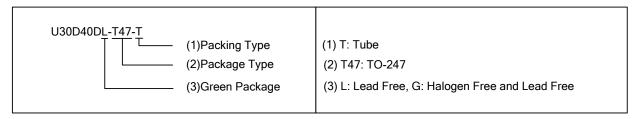
- * Low forward voltage drop
- * High switching speed
- * High current capability
- * High surge capacity
- * Low power loss

SYMBOL

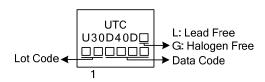


ORDERING INFORMATION

Ordering Number		Dookses	Da alsia si	
Lead Free	Halogen Free	Package	Packing	
U30D40DL-T47-T	U30D40DG-T47-T	TO-247	Tube	



■ MARKING



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ABSOLUTE MAXIMUM RATINGS

PARAMETER		SYMBOL	RATINGS	UNIT
DC Blocking Voltage		V_R	400	V
Working Peak Reverse Voltage		V_{RWM}	400	V
Peak Repetitive Reverse Voltage		V_{RRM}	400	V
RMS Reverse Voltage		$V_{R(RMS)}$	280	V
Average Rectified Forward Current	Per Leg		15	Α
T _C =125°C	Per Total Device	I _{F(AV)}	30	Α
Peak Repetitive Forward Current (Rate V _R , Square Wave, 20kHz, T _C =125°C)		I _{FM}	30	Α
Non-Repetitive Peak Surge Current (Surge Applied at Rate Load Conditions Halfware, Single Phase, 60Hz)		I _{FSM}	250	Α
Junction Temperature		TJ	-65~+150	°C
Storage Temperature		T _{STG}	-65~+150	°C

Note: Absolute maximum ratings are those values beyond which the device could be permanently damaged. Absolute maximum ratings are stress ratings only and functional device operation is not implied.

■ ELECTRICAL CHARACTERISTICS

PARAMETER	SYMBOL	TEST CONDITIONS	MIN	TYP	MAX	UNIT
Instantaneous Forward Voltage	\/ ₋	I _F =15A, T _C =25°C			1.30	٧
		I _F =15A, T _C =100°C			1.16	V
Instantaneous Reverse Current	l lo	Rated DC Voltage, T _C =25°C			10	μΑ
		Rated DC Voltage, T _C =125°C			700	μΑ
Reverse Recovery Time (Note 2)	T _{rr}				50	ns
Junction Capacitance (Note 1)	CJ			150		pF

Notes: 1. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2. Reverse Recovery Test Conditions: I_F =0.5A, I_R =1A, I_R =1A, I_R =0.25A.

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