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**Released**

# X band TR Limiter

Model No. TL393

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**Microwave Division**

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New Japan Radio Co., Ltd.  
Microwave Division

Title:

Datasheet of TL393

Reference No.:  
DS-TL393

Rev.:  
02E

Sheet:  
1/3

## ■ GENERAL DESCRIPTION

TL393 is a broad band primer less TR Limiter designed specifically for use with X band radars. Consisting of a TR tube and 2 stages diode limiter, TL393 is a small, rugged device, which protects the LNA or the mixer diode in the receiver from burning out as a result of RF power coming from other radars. Non-radioactive isotope is included for the ignition.



## ■ ELECTRICAL CHARACTERISTICS < at 25 °C >

PARAMETERS	MINIMUM	MAXIMUM	UNITS
Frequency range	9300	9500	MHz
V.S.W.R. (Note 1)	-	1.5	-
Insertion loss (Note 1,3)		2.0	dB
Flat leakage power (Note 2,3)		25	mW
Spike leakage power (Note 2,3)		400	mW
Recovery time (Note 4)		2.0	μs

Note 1: Measured at input power level 0.1mW CW.

Note 2: Measured at 50kW, 1.0μs pulse width and 1000 p.p.s.

Note 3: Measured at frequency 9410 MHz.

Note 4: Measured at 5kW, 1.0μs pulse width and 1000 p.p.s. 3dB recovered point.

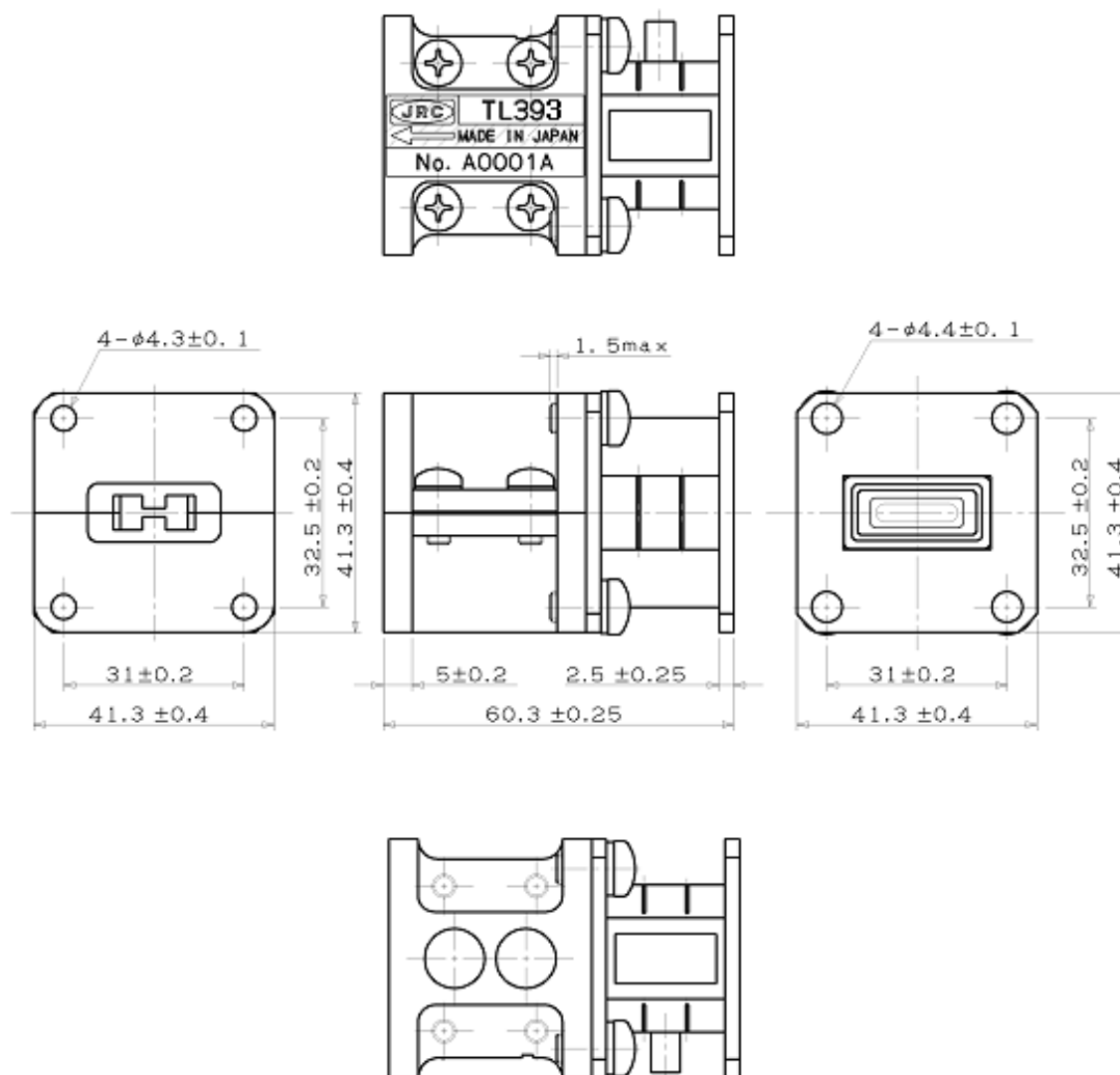
## ■ ABSOLUTE MAXIMUM RATINGS

These ratings cannot necessarily be used simultaneously and no individual ratings should be exceeded.

PARAMETERS	MINIMUM	MAXIMUM	UNITS
Transmitter power (Peak)	-	100	kW
Operating temperature	-30	+75	°C
Ambient temperature	-30	+90	°C
Pulse duration	-	1.2	μs

\* Above Specifications are subject to change without notice.

## ■ OUTLINE



(Dimensions are expressed in "mm".)

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