# TOSHIBA

#### TOSHIBA HIGH EFFICIENCY RECTIFIER (HED) SILICON EPITAXIAL JUNCTION TYPE

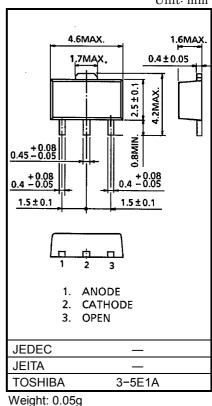
# **U1DL49**

## SWITCHING MODE POWER SUPPLY APPLICATIONS

- Repetitive Peak Reverse Voltage : V<sub>RRM</sub> = 200V
- Average Forward Current  $: I_F (AV) = 1.0A$ •
- Very Fast Reverse-Recovery Time: trr = 60ns (Max) •
- Low Forward Voltage  $V_{FM} = 0.98V (Max)$
- Available to Reduce Switching Losses and Output Noise •

#### MAXIMUM RATINGS (Ta = 25°C)

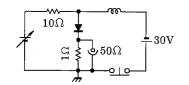
CHARACTERISTIC	SYMBOL	RATING	UNIT	
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	<sub>RM</sub> 200		
Average Forward Current	I <sub>F (AV)</sub>	1.0	А	
Peak One Cycle Surge Forward Current (Non-Repetitive)	I <sub>FSM</sub>	15 (50Hz)	A	
		16.5 (60Hz)		
Junction Temperature	Tj	-40~150	°C	
Storage Temperature Range	T <sub>stg</sub>	-40~150	°C	



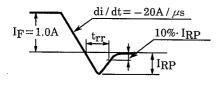
# ELECTRICAL CHARACTERISTICS (Ta = 25°C)

CHARACTERISTIC	0	SYMBOL	TEST CONDITION	MIN	TYP.	MAX	UNIT
Peak Forward Voltage		V <sub>FM</sub>	I <sub>FM</sub> = 1.0A	-	_	0.98	V
Repetitive Peak Reverse Cu	irrent	I <sub>RRM</sub>	V <sub>RRM</sub> = 200V	_		10	μA
Reverse Recovery Time	(Note 1)	t <sub>rr</sub>	I <sub>F</sub> = 1A, di / dt = -20A / μs	_	_	60	ns
Forward Recovery Time	(Note 2)	t <sub>fr</sub>	I <sub>F</sub> = 1.0A	_	_	100	ns
Thermal Resistance		R <sub>th (j−a)</sub>	Junction to Ambient	_	_	125	°C/W

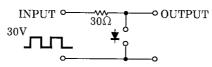
Note 1: trr TEST CIRCUIT

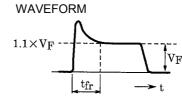


WAVEFORM

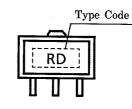








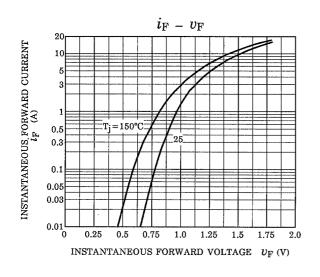
## MARKING

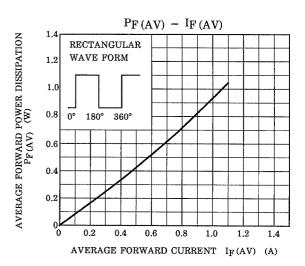


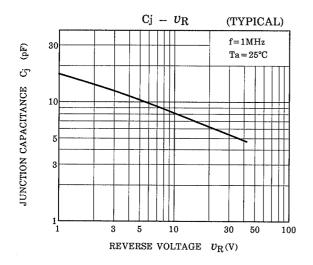
CODE	TYPE
RD	U1DL49

Unit: mm

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