Unit in mm

TOSHIBA HIGH EFFICIENCY RECTIFIER (HED) SILICON EPITAXIAL JUNCTION TYPE

# R 5 D L 4 1 A

### SWITCHING TYPE POWER SUPPLY APPLICATIONS

Repetitive Peak Reverse Voltage : V<sub>RRM</sub>=200V

Average Forward Current  $: I_{F(AV)} = 1.5A (Ta = 25^{\circ}C)$ 

Very Fast Reverse-Recovery Time: trr=35ns (Max.)

Low Forward Voltage  $: V_{FM} = 0.98V \text{ (Max.)}$ 

Available to Reduce Switching Losses and Output Noise.

## **MAXIMUM RATINGS**

CHARACTERISTIC	SYMBOL	RATING	UNIT	
Repetitive Peak Reverse Voltage	$v_{RRM}$	200	V	
Average Forward Current	I <sub>F (AV)</sub>	1.5	A	
Peak One Cycle Surge Forward	T-los a	60 (50Hz)	Λ	
Current (Non-Repetitive)	I <sub>FSM</sub>	66 (60Hz)	A	
Junction Temperature	$T_{j}$	-40~150	°C	
Storage Temperature	${ m T_{stg}}$	-40~150	°C	

1. ANODE CATHODE

**JEDEC** EIAJ

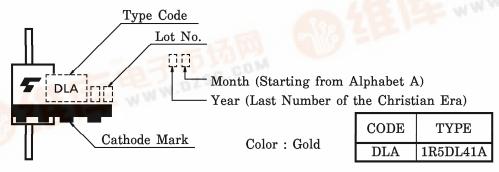
TOSHIBA 3-4B1A

Weight: 0.47g

### **ELECTRICAL CHARACTERISTICS** (Ta = 25°C)

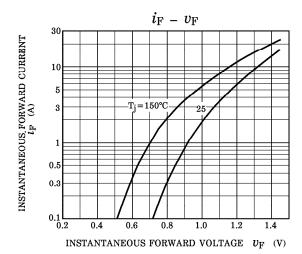
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$V_{\mathbf{FM}}$	I <sub>FM</sub> =1.5A	T —		0.98	V
Repetitive Peak Reverse Current	IRRM	V <sub>RRM</sub> =200V	_	_	100	μA
Reverse Recovery Time	t <sub>rr</sub>	$I_F=1A$ , $di/dt=-30A/\mu s$	_	<b>—</b>	35	ns
Forward Recovery Time	tfr	$I_{\mathrm{F}} = 1.0 \mathrm{A}$	_	_	100	ns
Thermal Resistance	R <sub>th (j-a)</sub>	Junction to Ambient	-	_	100	°C/W
Thermal Resistance	$R_{ ext{th }(j-\ell)}$	Junction to Lead	I —		30	°C/W
MARKING	Гуре Code	<b>一种</b>	E W	WW.	DZSC	.C.O.In

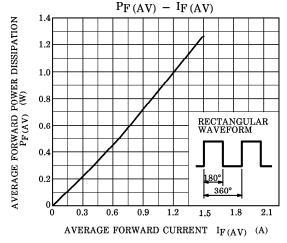
### **MARKING**

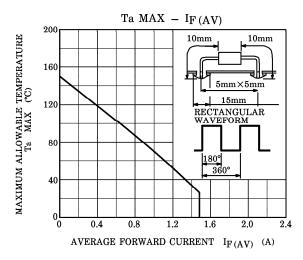


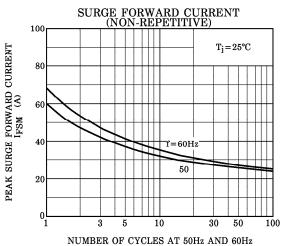
TOSHIBA is continually working to improve the quality and the reliability of its products. Nevertheless, semiconductor devices in general can malfunction or fail due to their inherent electrical sensitivity and vulnerability to physical stress. It is the responsibility of the buyer, when utilizing TOSHIBA products, to observe standards of safety, and to avoid situations in which a malfunction or failure of a TOSHIBA product could cause loss of human life, bodily injury or damage to property. In developing your designs, please ensure that TOSHIBA products are used within specified per anges as set forth in the most recent products specifications. Also, please keep in mind the precautions and conditions set forth in the TOSHIBA Semiconductor Reliability Handbook.

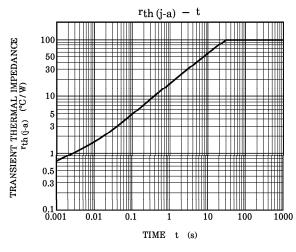
**TOSHIBA** 1R5DL41A











961001EAA2'

The information contained herein is presented only as a guide for the applications of our products. No responsibility is assumed by TOSHIBA CORPORATION for any infringements of intellectual property or other rights of the third parties which may result from its use. No license is granted by implication or otherwise under any intellectual property or other rights of TOSHIBA CORPORATION or others.

The information contained herein is subject to change without notice.