TOSHIBA HIGH EFFICIENCY RECTIFIER (HED) SILICON EPITAXIAL JUNCTION TYPE

# 3 D L 4 1 A

#### SWITCHING TYPE POWER SUPPLY APPLICATIONS

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

• Average Forward Current :  $I_{F(AV)} = 3.0A$ 

• Very Fast Reverse-Recovery Time : t<sub>rr</sub>=35ns (Max.)

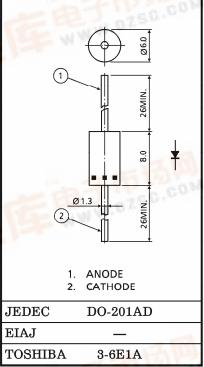
● Low Forward Voltage : V<sub>FM</sub>=0.98V (Max.)

Available to Raduce 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</sub> (AV)	3.0	A	
Peak One Cycle Surge Forward	T			
Current (Non-Repetitive)	IFSM	88 (60Hz)	A	
Junction Temperature	$T_j$	-40~150	$^{\circ}\mathrm{C}$	
Storage Temperature	$T_{ m stg}$	-40~150	°C	

## Unit in mm

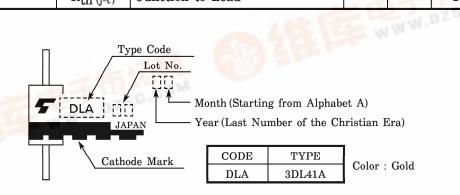


## Weight: 1.18g

## ELECTRICAL CHARACTERISTICS (Ta = 25°C)

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CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	$v_{FM}$	I <sub>FM</sub> =3.0A	_	_	0.98	V
Repetitive Peak Reverse Current	I <sub>RRM</sub>	$V_{ m RRM}$ =200V	_	-	100	$\mu$ A
Reverse Recovery Time	$t_{rr}$	$I_F=1A$ , di/dt= $-30A/\mu s$	_	1	35	ns
Forward Recovery Time	$t_{fr}$	I <sub>F</sub> =1.0A	_	_	100	ns
Thermal Resistance	$R_{ ext{th (j-a)}}$	Junction to Ambient	_	_	57	°C/W
Thermal Resistance	$R_{ ext{th }(j-\ell)}$	Junction to Lead		7	18	°C/W

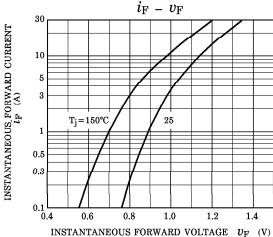
### **MARKING**

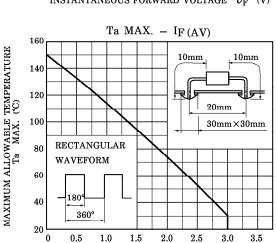


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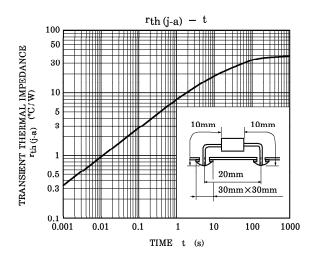
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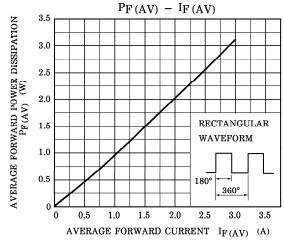
**TOSHIBA 3DL41A** 

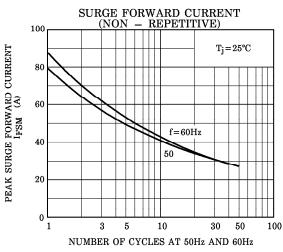




AVERAGE FORWARD CURRENT IF (AV) (A)







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