

TOSHIBA HIGH EFFICIENCY RECTIFIER (HED) SILICON EPITAXIAL JUNCTION TYPE

1DL41A

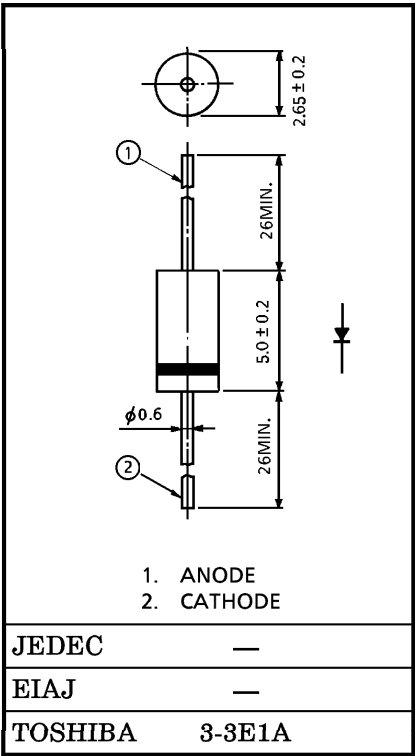
SWITCHING TYPE POWER SUPPLY APPLICATIONS

Unit in mm

- Repetitive Peak Reverse Voltage : $V_{RRM} = 200\text{ V}$
- Average Forward Current : $I_F (AV) = 1.0\text{ A}$ ($T_a = 64^\circ\text{C}$)
- Very Fast Reverse-Recovery Time : $t_{rr} = 35\text{ ns}$ (Max.)
- Low Forward Voltage : $V_{FM} = 0.98\text{ V}$ (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 ($T_a = 64^\circ\text{C}$)	$I_F (AV)$	1.0	A
Peak One Cycle Surge Forward Current (Non-Repetitive)	I_{FSM}	30 (50 Hz) 33 (60 Hz)	A
Junction Temperature	T_j	$-40\sim 150$	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	$-40\sim 150$	$^\circ\text{C}$

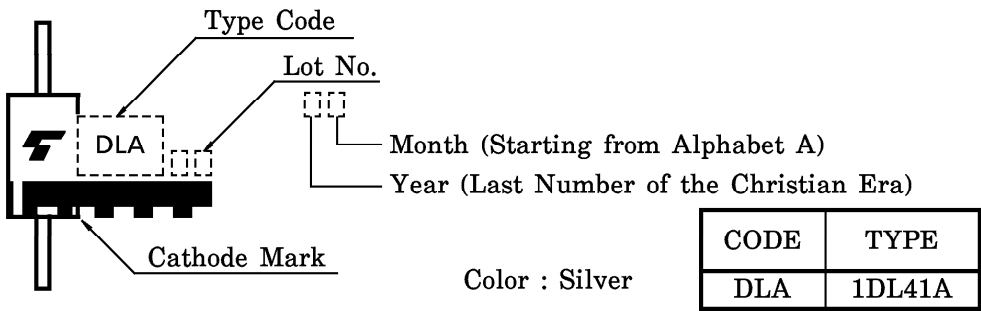


ELECTRICAL CHARACTERISTICS ($T_a = 25^\circ\text{C}$)

Weight : 0.225 g

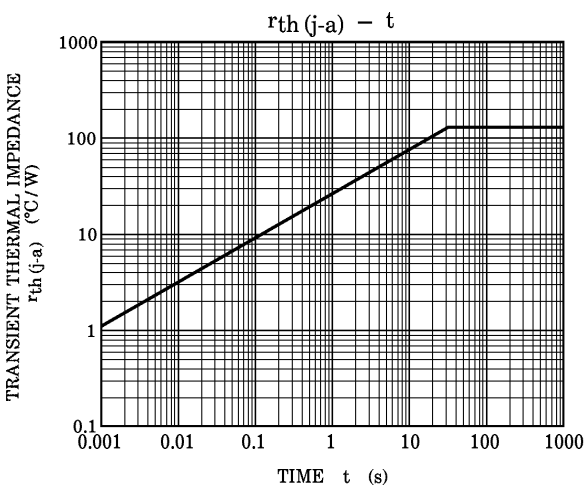
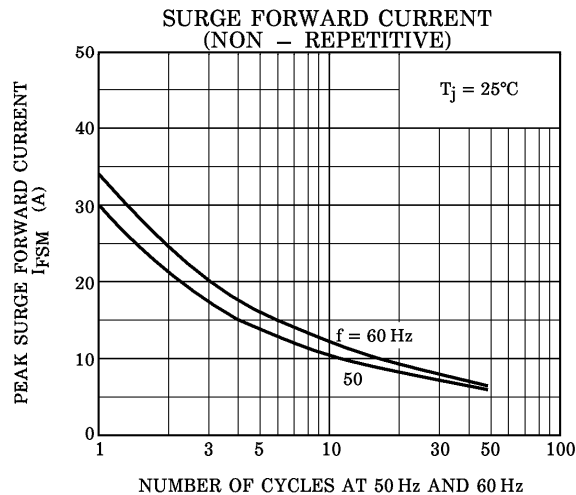
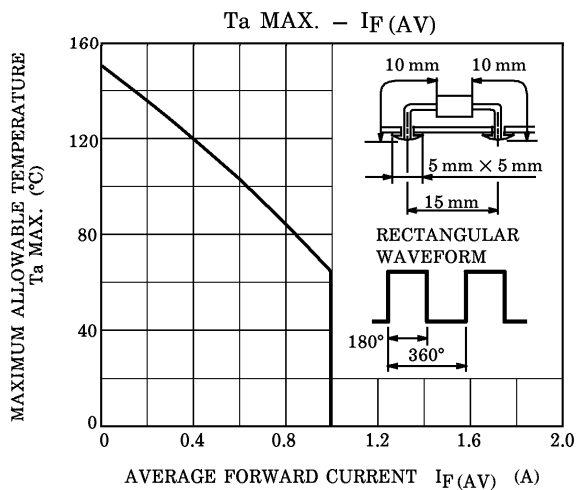
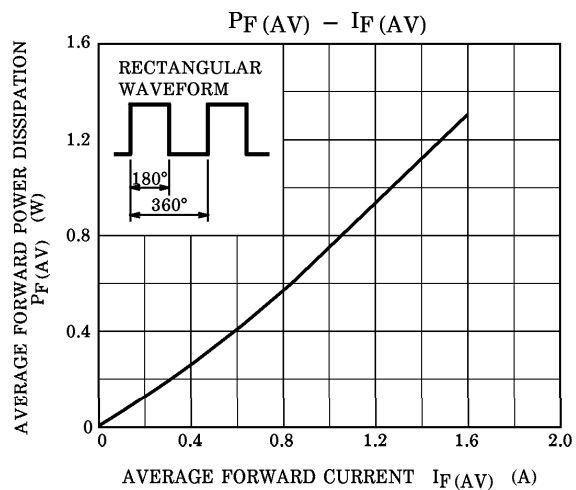
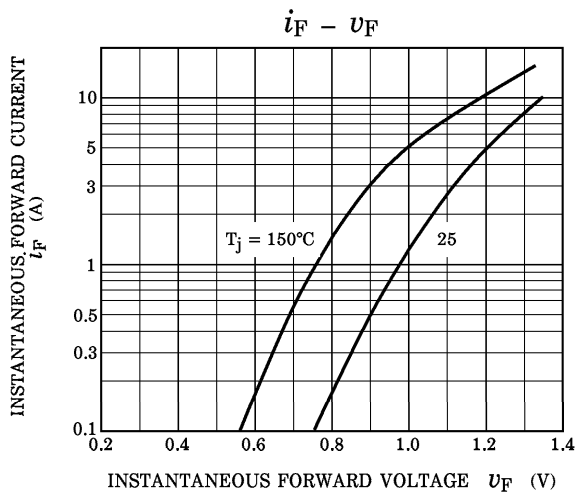
CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Peak Forward Voltage	V_{FM}	$I_{FM} = 1.0\text{ A}$	—	—	0.98	V
Repetitive Peak Reverse Current	I_{RRM}	$V_{RRM} = 200\text{ V}$	—	—	100	μA
Reverse Recovery Time	t_{rr}	$I_F = 1\text{ A}$, $di/dt = -30\text{ A}/\mu\text{s}$	—	—	35	ns
Forward Recovery Time	t_{fr}	$I_F = 1.0\text{ A}$	—	—	100	ns
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient	—	—	115	$^\circ\text{C}/\text{W}$
Thermal Resistance	$R_{th(j-l)}$	Junction to Lead	—	—	45	$^\circ\text{C}/\text{W}$

MARKING



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