TOSHIBA HIGH EFFICIENCY DIODE STACK (HED) SILICON EPITAXIAL TYPE

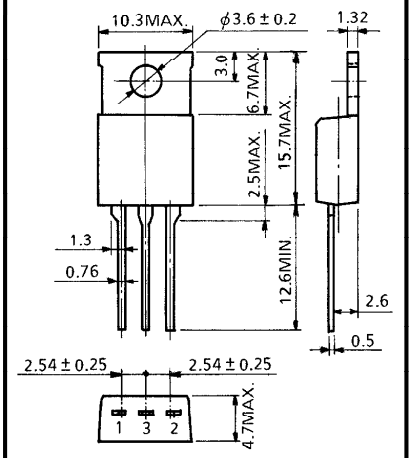
10DL2C41A

SWITCHING TYPE POWER SUPPLY APPLICATION

CONVERTER & CHOPPER APPLICATION

- Repetitive Peak Reverse Voltage : $V_{RRM}=200V$
- Average Output Rectified Current : $I_O=10A$
- Ultra Fast Reverse-Recovery Time : $t_{rr}=35ns$

Unit in mm



1. ANODE
2. ANODE
3. CATHODE

JEDEC	TO-220AB
EIAJ	—
TOSHIBA	12-10E1A

Weight : 2.0g

MAXIMUM RATINGS

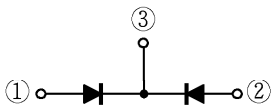
CHARACTERISTIC	SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	V_{RRM}	200	V
Average Output Rectified Current (Tc=116°C)	I_O	10	A
Peak One Cycle Surge Forward Current (Non Repetitive)	I_{FSM}	50 (50Hz)	A
Junction Temparature	T_j	−40~150	°C
Storage Temparature Range	T_{stg}	−40~150	°C
Screw Torque	—	0.6	N·m

ELECTRICAL CHARACTERISTICS (Ta = 25°C)

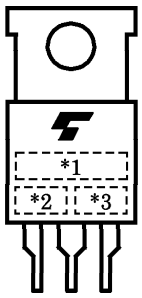
CHARACTERISTIC	SYMBOL	TEST CONDITION	TYP.	MAX.	UNIT
Peak Forward Voltage (Note 1)	V_{FM}	$I_{FM}=5A$	—	0.98	V
Repetitive Peak Reverse Current (Note 1)	I_{RRM}	$V_{RRM}=200V$	—	10	μA
Reverse Recovery time (Note 1)	t_{rr}	$I_F=2A$, $di/dt=-20A/\mu s$	—	35	ns
Forward Recovery time (Note 1)	t_{fr}	$I_F=1.0A$	—	100	ns
Thermal Resistance	$R_{th\,(j-c)}$	DC Total, Junction to Case	—	3.0	°C/W

Note 1 : A value of one cell.

POLARITY



MARKING



*1	MARK	10DL2C
*2	A	
*3	Lot Number □□ — Month (Starting from Alphabet A) — Year (Last Number of the Christian Era)	

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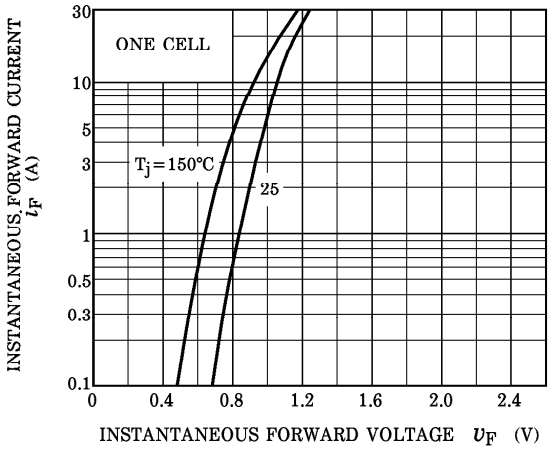
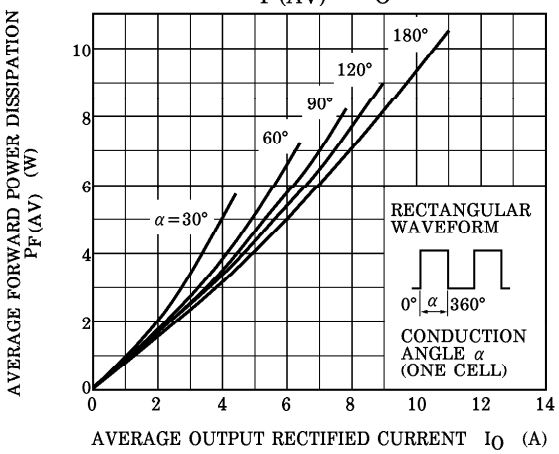
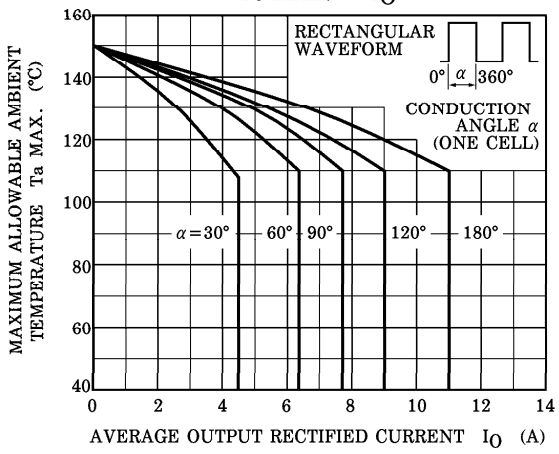
$i_F - v_F$



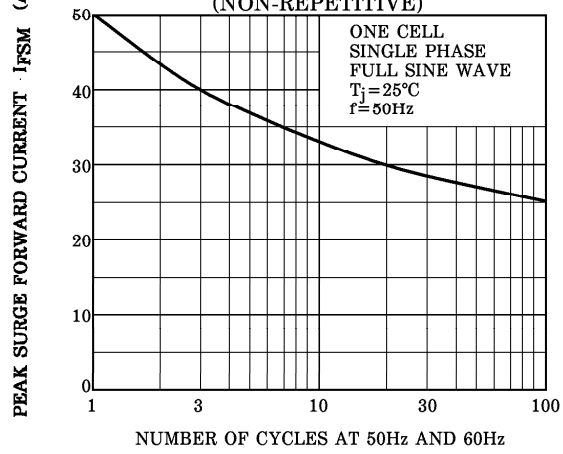
$P_{F(AV)} - I_O$



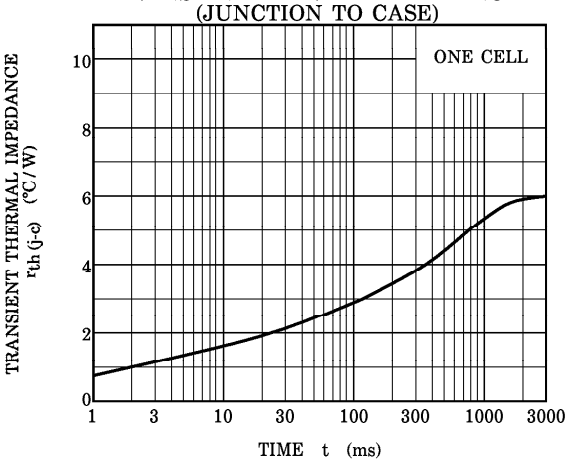
Tc MAX. – I_O



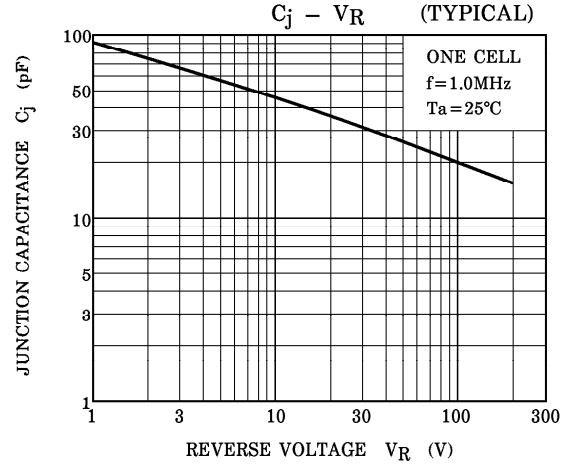
SURGE FORWARD CURRENT (NON-REPETITIVE)



TRANSIENT THERMAL IMPEDANCE (JUNCTION TO CASE)



$C_j - V_R$ (TYPICAL)



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