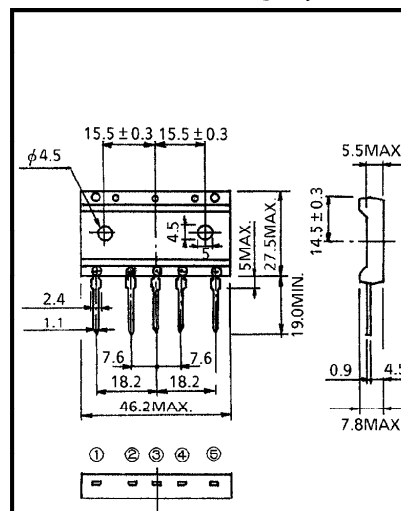


TOSHIBA RECTIFIER MODULE SILICON DIFFUSED TYPE

# 30Q6P45, 30U6P45

- THREE PHASE FULL WAVE BRIDGE APPLICATIONS
- INVERTER EQUIPMENT FOR AC MOTOR CONTROL
- CHOPPER EQUIPMENT FOR DC MOTOR CONTROL
- DC SUPPLY FOR BATTERY
- OTHER POWER CONVERSION EQUIPMENT

Unit in mm



- Repetitive Peak Reverse Voltage :  $V_{RRM}=1200、1600V$
- Average Output Rectified Current :  $I_O=30A$
- Isolation Voltage :  $V_{Isol}=2500V$  AC 60s
- Single In-line Package

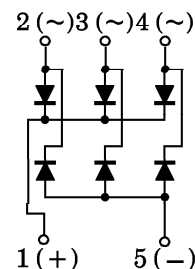
MAXIMUM RATINGS ( $T_a = 25^\circ C$ )

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Reverse Voltage	30Q6P45	$V_{RRM}$	1200	V
	30U6P45		1600	
Average Output Rectified Current		$I_O$	30	A
Peak One Cycle Surge Forward Current (Non-Repetitive)		$I_{FSM}$	300 (50Hz)	A
			330 (60Hz)	
Junction Temperature		$T_j$	-40~150	°C
Storage Temperature		$T_{stg}$	-40~125	°C
Screw Torque (Note 1)		—	1.5	Nm
Isolation Voltage (AC, t=60s)		$V_{Isol}$	2500	V

JEDEC	—
EIAJ	—
TOSHIBA	12-46A1A

Weight : 24g

CONNECTION



Note 1 : Recommended torque 1.2Nm

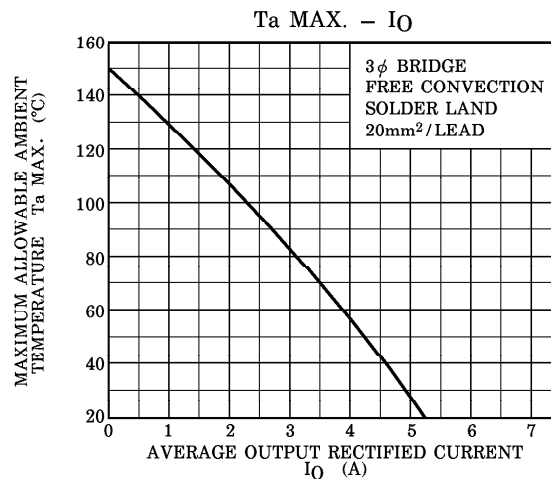
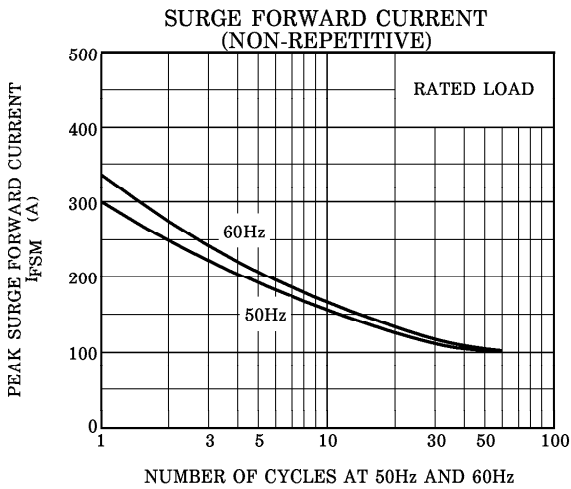
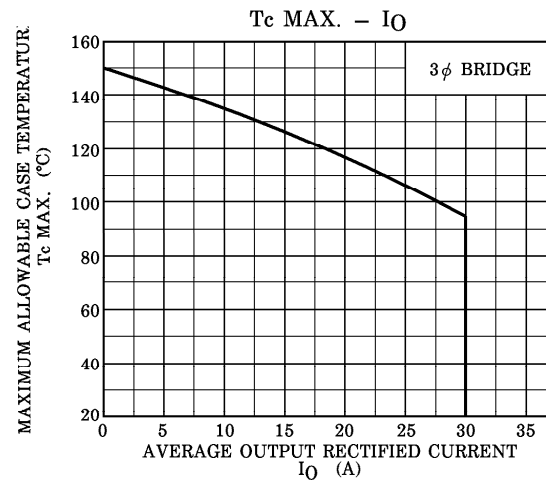
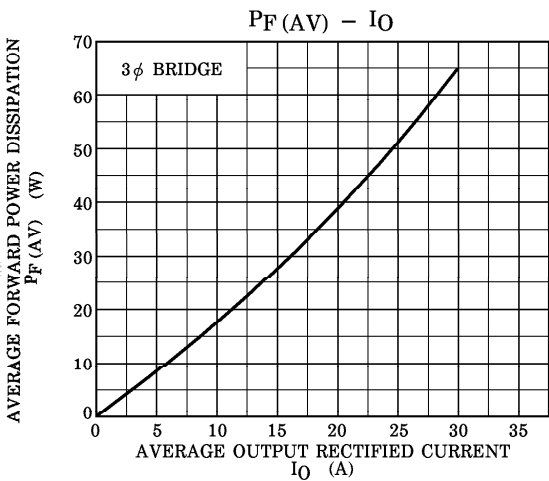
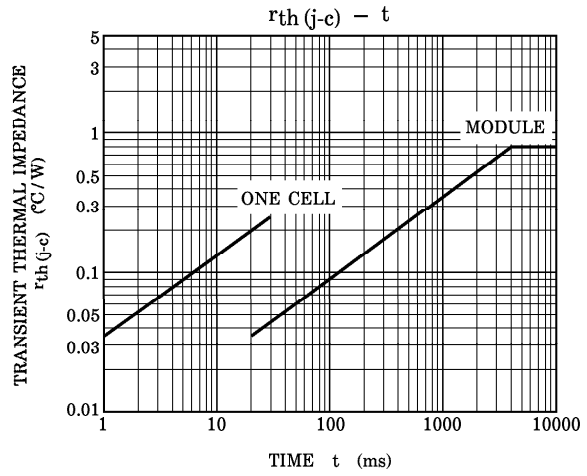
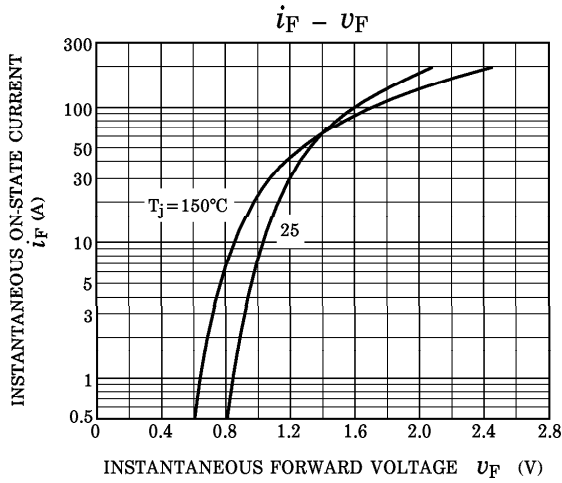
ELECTRICAL CHARACTERISTICS ( $T_a = 25^\circ C$ )

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Repetitive Peak Reverse Current	$I_{RRM}$ (Note 2)	$V_{RRM} = \text{Rated}$	—	100	$\mu A$
Peak Forward Voltage	$V_{FM}$ (Note 2)	$I_{FM} = 30A$	—	1.3	V
Thermal Resistance	$R_{th(j-c)}$	DC (Total) (Junction-Case)	—	0.8	°C / W
	$R_{th(j-a)}$	Free Convection (Junction-Ambient)	—	15	

Note 2 : A value per rectifier unit.

961001EAA2

● 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 operating ranges 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.



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.