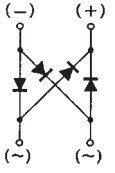
U05(B,G,J)4B48

SILICON DIFFUSED TYPE RECTIFIER STACK
Reverse Voltage - 100 to 600 Volts
Forward Current - 0.5 Ampere

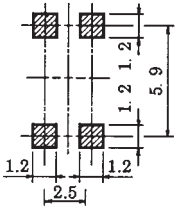
Application: SINGLE PHASE BRIDGE RECTIFIER APPLICATIONS

- Repetitive peak reverse voltage: V_{RRM}=100~600Volts
- Average output rectified current: I_O=0.5A (T_A=30℃)
- Glass passivated cavity-free junction
- Dual in line type
- Plastic package

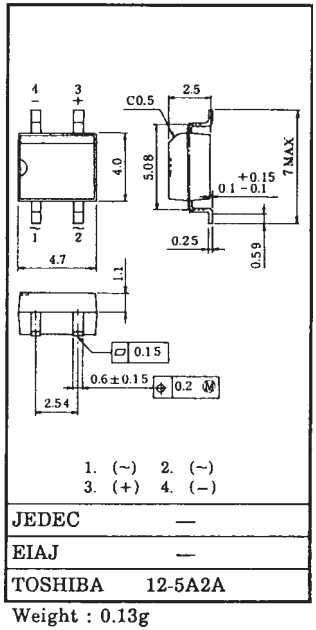
POLARITY



Standard Soldering Pad



Unit in mm



JEDEC	—
EIAJ	—
TOSHIBA	12-5A2A

Weight : 0.13g

Maximum Ratings

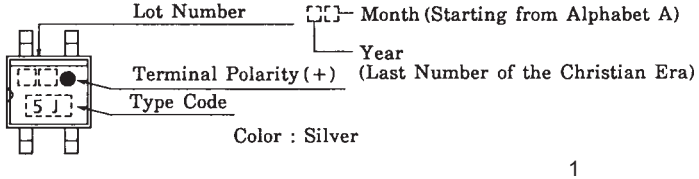
Characteristics		Symbols	Ratings	Units
Repetitive peak reverse voltage	U05B4B48	V_{RRM}	100	Volts
	U05G4B48		400	
	U05J4B48		600	
Average output rectified current (T_a=30℃)		I_O	0.5 0.8 *	Amp
Peak one cycle surge forward current (Non Repetitive)		I_{FSM}	30 (50Hz) 33 (60Hz)	Amps
Junction temperature		T_J	-40 to 150	℃
Storage temperature range		T_{stg}	-40 to 150	℃

Electrical Characteristics (T_A=25℃)

* On alumina substrate

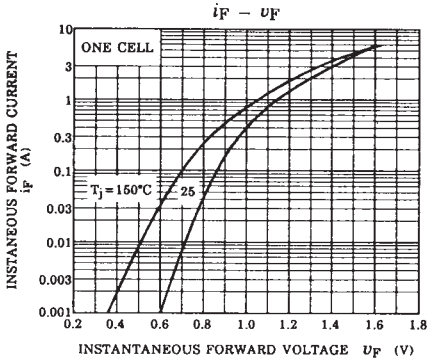
Characteristics	Symbols	Test Conditions	Min.	Typ.	Max.	Units
Peak forward voltage	V_{FM}	I_{FM}=0.4A	-	-	1.0	Volt
Repetitive peak reverse current	I_{RRM}	V_{RRM}=Rated	-	-	10	uA
Thermal resistance (Junction to Ambient)	$R_{th(J-A)}$	DC	- -	- -	130 75 *	℃/W

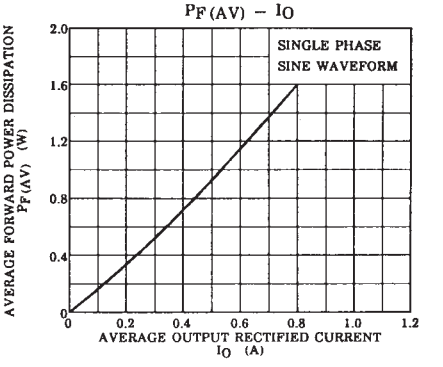
MARK

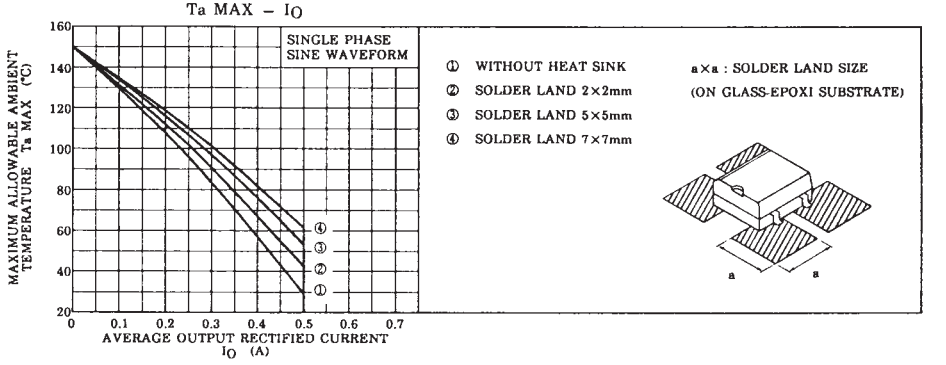


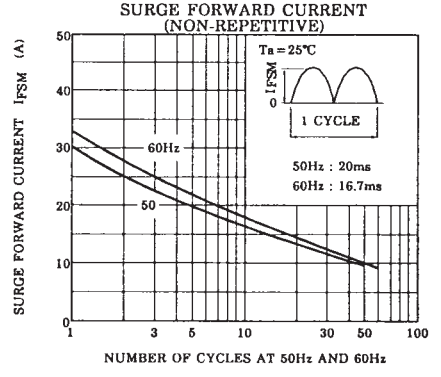
Code	Type
5B	U05B4B48
5G	U05G4B48
5J	U05J4B48

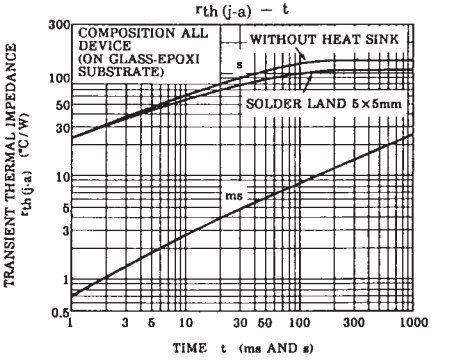
U05(B,G,J)4B48


$i_F - v_F$
ONE CELL
T_j=150°C
25
INSTANEOUS FORWARD CURRENT i_F (A)
INSTANTANEOUS FORWARD VOLTAGE v_F (V)


$P_{F(AV)} - I_O$
SINGLE PHASE
SINE WAVEFORM
AVERAGE FORWARD POWER DISSIPATION $P_{F(AV)}$ (W)
AVERAGE OUTPUT RECTIFIED CURRENT I_O (A)


Ta MAX - I_O
SINGLE PHASE
SINE WAVEFORM
① WITHOUT HEAT SINK
② SOLDER LAND 2×2mm
③ SOLDER LAND 5×5mm
④ SOLDER LAND 7×7mm
a×a : SOLDER LAND SIZE
(ON GLASS-EPOXI SUBSTRATE)
a
a
MAXIMUM ALLOWABLE AMBIENT TEMPERATURE Ta MAX (°C)
AVERAGE OUTPUT RECTIFIED CURRENT I_O (A)


SURGE FORWARD CURRENT
(NON-REPETITIVE)
Ta=25°C
I_{FSM}
0
1 CYCLE
60Hz
50
50Hz : 20ms
60Hz : 16.7ms
SURGE FORWARD CURRENT I_{FSM} (A)
NUMBER OF CYCLES AT 50Hz AND 60Hz


$r_{th(j-a)} - t$
COMPOSITION ALL DEVICE
(ON GLASS-EPOXI SUBSTRATE)
WITHOUT HEAT SINK
s
SOLDER LAND 5×5mm
ms
TRANSIENT THERMAL IMPEDANCE $r_{th(j-a)}$ (°C/W)
TIME t (ms AND s)