

Product Name: TK2K2A60F

Package Name: TO-220SIS

1. Thermal tests

Test Item	Test Condition	Failure Size / Sample Size
Heat resistance (Flow)	Peak : 260 deg.C Immersion time : 10 s (Up to 1.5mm from the Root shall be immersed) Once	0 / 32
Heat resistance (Iron)	Temperature of the iron tip : 400 deg.C Time : 3 s Once	0 / 32
Temperature cycling	- 55 deg.C(30 min) to 150 deg.C(30 min) 100 cycles	0 / 50
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2. Mechanical tests

Test Item	Test Condition	Failure Size / Sample Size
Solderability	Solder bath : Sn-Ag-Cu 245 deg.C , 5 s ,once (using Flux) Solder bath : Sn-Pb 230 deg.C , 5 s ,once (using Flux)	0 / 11
Lead integrity	Weight = 10 N 0 deg. to 90 deg. to 0 deg. Bend , 3times	0 / 11
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-	-	-
-	-	-

3. Life tests

Test Item	Test Condition	Failure Size / Sample Size
Steady state operation	Ta = 25 deg.C, PD = 2.5W ,1000 h	0 / 30
High temp. gate bias	Ta = 150 deg.C, VGS = 30V ,1000 h	0 / 30
High temp. reverse bias	Ta = 150 deg.C, VDS = 600V ,1000 h	0 / 30
High temp. storage	Ta = 150 deg.C ,1000 h	0 / 30
High temp. high humidity storage	Ta = 85 deg.C, RH = 85% ,1000 h	0 / 30
Pressure cooker test	Ta = 121 deg.C(203kPa)(Unsaturated) ,96 h	0 / 20

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For detailed reliability test information, such as test conditions and criteria, please contact your Toshiba sales representative.

Estimated Failure Rate

Product Name	Estimated failure rate
TK2K2A60F	0.41 Fit or less

Above estimated value is determined with the standard operation under the general environment:*

*The general environment here means the conditions of $T_j = 55$ degree C and no application of surge and so on.

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