

Products information

● **Policy way of operating temperature for discrete semiconductor**

1. Storage temperature is decided by chip and sealed materials of discrete semiconductors (herein, we call it as Di) and the operating temperature can be used storage temperature basically.
2. However, longevity of Di get considerable influence of ambient temperature. And the higher temperature become, the shorter longevity becomes. And leak current which flow on the part of junction at off become in proportion with temperature rise. And it increases according to, generally said, "10°C–twice formula". In order words, in every 10°C temperature up, leak value increases by twice. In the rise of 100°C , it become 2^{10} = over 1000 times.
3. Due to above-mentioned reasons, we recommended derating of usage temperature to keep longevity of Di longer and to stabilize operation. And as the value, lower and upper ceiling, 70% of the storage temperature is set as recommendable operating temperature.
4. For your information electrical characteristics will be influenced by the charge even in the range of operation temperature. Accordingly, please design and use for the operation of set which our Di is used.

● **Judgement of exporting administration (COCOM)**

1. Judgement of exporting administration for ROHM transistors and diodes
 ROHM transistors and diodes dose not apply to subjects shown on COCOM LIST.
 (COCOM : Coordinating committee for export to communist countries.)

● **Hazard material information**

ROHM has confirmed that the following hazard materials are not used in any of our manufacturing processes (including all ROHM product manufacturing locations or procured materials.)

<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">Destruction materials of Ozone layer</div>
<ol style="list-style-type: none"> 1) Flon (CFC) 11, 12, 13, 111, 112, 113, 114, 115, 211, 212, 213, 214, 215, 216, 217 2) Halocarbon 1211, 1301, 2402 3) Carbon tetrachloride (CCl₄) 4) Methyl chloroform (1.1.1. trichloroethane)

<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">Bromine compound (decabromo)</div>
<ol style="list-style-type: none"> 1) Poly bromo biphenyl oxides (PBBOs, PBDO, PBDPO, PBDE, PBDPE) 2) Deca bromo biphenyl oxides (DBBOs, DBDO, DBDPO, DBDE, DBDPE) 3) Octa bromo biphenyl oxides (OBBOs, OBDO, OBDPO, OBDE, OBDPE) 4) Tetra bromo biphenyl oxides (TBBOs, TBDO, TBDPO, TBDE, TBDPE) 5) Poly bromo biphenyls (PBBs)

<div style="border: 1px solid black; display: inline-block; padding: 2px 10px;">Heavy metal</div>
<ol style="list-style-type: none"> 1) Mercury (HG) 2) Plumbum (Pb) * 1 3) Cadmium (cd) 4) Chromium (VI) compound

* 1 It contains Pb which is exmpted from the application of ROHS

Notes

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- The contents described herein are subject to change without notice. The specifications for the product described in this document are for reference only. Upon actual use, therefore, please request that specifications to be separately delivered.
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- Products listed in this document are no antiradiation design.

The products listed in this document are designed to be used with ordinary electronic equipment or devices (such as audio visual equipment, office-automation equipment, communications devices, electrical appliances and electronic toys).

Should you intend to use these products with equipment or devices which require an extremely high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportation equipment, aerospace machinery, nuclear-reactor controllers, fuel controllers and other safety devices), please be sure to consult with our sales representative in advance.

About Export Control Order in Japan

Products described herein are the objects of controlled goods in Annex 1 (Item 16) of Export Trade Control Order in Japan.

In case of export from Japan, please confirm if it applies to "objective" criteria or an "informed" (by MITI clause) on the basis of "catch all controls for Non-Proliferation of Weapons of Mass Destruction.