Thermal Resistance / 熱抵抗

Product	Transistor	Type	QSX1
Package	TSMT6	JEDEC Code	SOT-457T

1. Thermal Resistance / 熱抵抗データ

QSX1 (TSMT6)
Mounted board
15mm×20mm×0.8mm

ガラスエポキシ基板
Glass Epoxy Board

測定項目 ITEM	記号 SYMBOL	測定値 VALUE	単位 UNIT
ジャンクション - 雰囲気間熱抵抗 Thermal resistance between junction and ambient temparature	$R_{th(j-a)}$	250.0	ºC/W
ジャンクション - ケース間熱抵抗 Thermal resistance between junction and case	$R_{th(j-c)}$	77.6	ºC/W

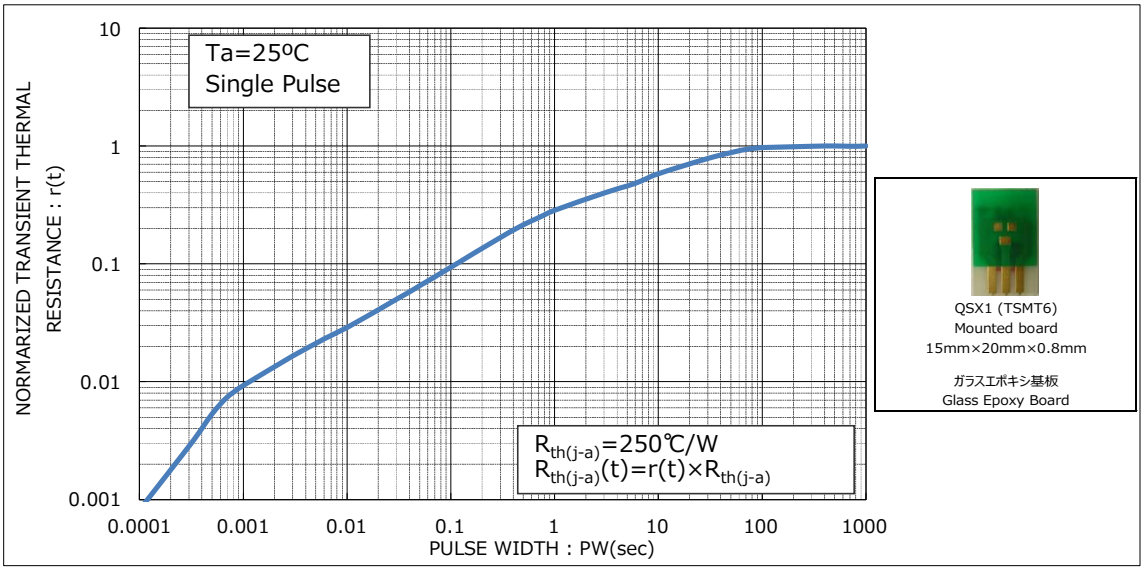
$R_{th(j-c)}$は、周囲温度25ºCにおいて、ケース標印面の最高温点を放射温度計にて測定しました。
この時のケース温度をT_{case}とし、また、ジャンクション温度をTjとして、以下の式より算出しました。
We calculated Rth(j-c) using the below formula.
Case temperature(Tcase) was measured at the point of maximum temperature
of the top side of the case(the marking side)under the condition of
Ta=25℃ by radiation thermometer.

$$R_{th(j-c)} = \frac{T_j - T_{case}}{Pc}$$

Pc:印加電力
Applied Power

$R_{th(j-a)}$,$R_{th(j-c)}$は、実装基板や半田付けによる放熱条件やケース温度測定方法によって
大きく（～数倍程度）変化しますので、あくまでも参考データとしてご活用ください。
Generally speaking, the values of $R_{th(j-a)}$ and $R_{th(j-c)}$ may vary depending on the thermal radiation ability of the board on which the device is mounted, as well as the device itself.
Therefore, the value of $R_{th(j-a)}$ and $R_{th(j-c)}$ measured under our board condition can be very different from the one measured under customer's board condition.
In other words,the value of $R_{th(j-a)}$ and $R_{th(j-c)}$ measured under our condition cannot always be applied to customer's condition.

2. Transient Thermal Resistance / 過渡熱抵抗



Notes

1) The information contained herein is subject to change without notice.

2) Before you use our Products, please contact our sales representative and verify the latest specifications.

3) Although ROHM is continuously working to improve product reliability and quality, semiconductors can break down and malfunction due to various factors.
Therefore, in order to prevent personal injury or fire arising from failure, please take safety measures such as complying with the derating characteristics, implementing redundant and fire prevention designs, and utilizing backups and fail-safe procedures. ROHM shall have no responsibility for any damages arising out of the use of our Poducts beyond the rating specified by ROHM.

4) Examples of application circuits, circuit constants and any other information contained herein are provided only to illustrate the standard usage and operations of the Products. The peripheral conditions must be taken into account when designing circuits for mass production.

5) The technical information specified herein is intended only to show the typical functions of and examples of application circuits for the Products. ROHM does not grant you, explicitly or implicitly, any license to use or exercise intellectual property or other rights held by ROHM or any other parties. ROHM shall have no responsibility whatsoever for any dispute arising out of the use of such technical information.

6) The Products are intended for use in general electronic equipment (i.e. AV/OA devices, communication, consumer systems, gaming/entertainment sets) as well as the applications indicated in this document.

7) The Products specified in this document are not designed to be radiation tolerant.

8) For use of our Products in applications requiring a high degree of reliability (as exemplified below), please contact and consult with a ROHM representative : transportation equipment (i.e. cars, ships, trains), primary communication equipment, traffic lights, fire/crime prevention, safety equipment, medical systems, servers, solar cells, and power transmission systems.

9) Do not use our Products in applications requiring extremely high reliability, such as aerospace equipment, nuclear power control systems, and submarine repeaters.

10) ROHM shall have no responsibility for any damages or injury arising from non-compliance with the recommended usage conditions and specifications contained herein.

11) ROHM has used reasonable care to ensure the accuracy of the information contained in this document. However, ROHM does not warrants that such information is error-free, and ROHM shall have no responsibility for any damages arising from any inaccuracy or misprint of such information.

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