Panasonic

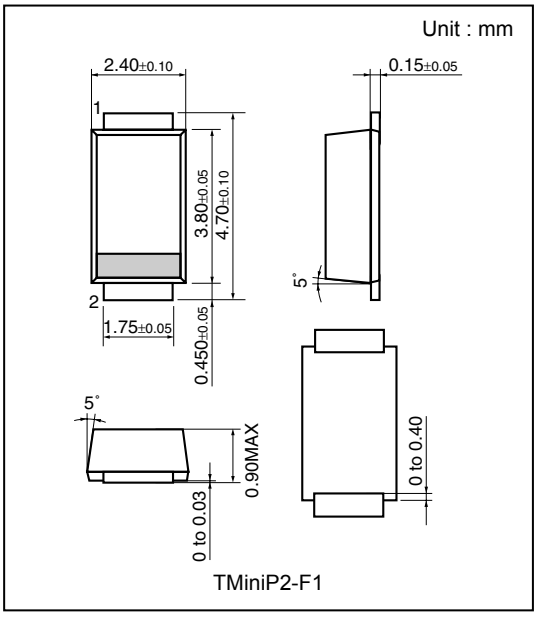
Product News

Newly-developed thin package enables producing slim-electronics products

2A/3A type Schottky Barrier Diode MA24D50/60

■ Overview

This newly developed 2A/3A type schottky barrier diode is suitable for on-board power supplies and power unit of mobile devices. As the height (h) of the package was decreased by sixty percent of the conventional NMiniP2 package, it will drastically contribute to the downsizing of the customer's set-products.



■ Feature

- With its unique wireless bonding structure, assures high surge resistance (IFSM=60A)
- Newly developed low-height package.

NMiniP2 : h<2.15mm max ⇒ TMiniP2:h<0.9mm max.

■ Applications

High-frequency wave rectification of switching power supplies
Prevention of reverse current from the batteries in the mobile devices

■ Main Specifications

- Absolute Maximum Rating (Ta=25℃)

Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	40	V
Peak reverse voltage		V_{RM}	40	V
Forward current (Average)	MA24D60	$I_{F(AV)}$	2	A
	MA24D50		3	A
Non-repetitive peak forward surge current*1		I_{FSM}	60	A
Junction temperature		T_j	150	℃
Storage temperature		T_{stg}	-40 to +150	℃

Note) *1 : The peak-to-peak value in one cycle of 50 Hz sine wave (non-repetitive)

- Electrical Characteristics (Ta=25℃)

Part Number	Forward voltage V_F (max) at $I_{F(AV)}$	Reverse current I_R (max) at V_R=40V	Terminal capacitance Ct (typ)	Type
MA24D60	0.48 V	200 µA	90 pF	Low V_F / Low I_R
MA24D50	0.51 V	200 µA	105 pF	Low V_F / Low I_R

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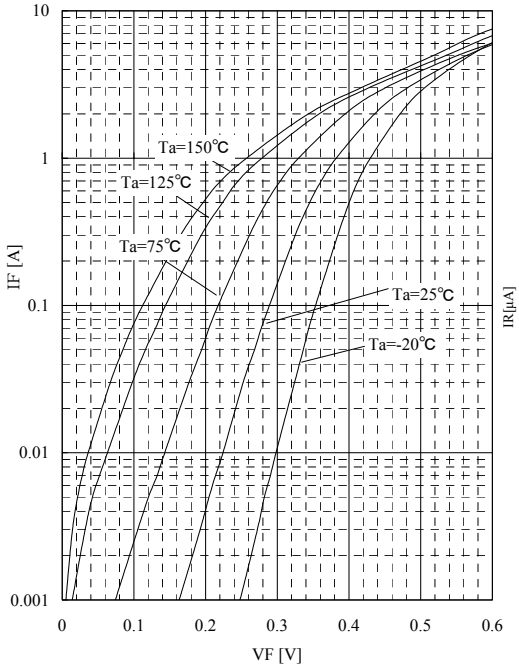
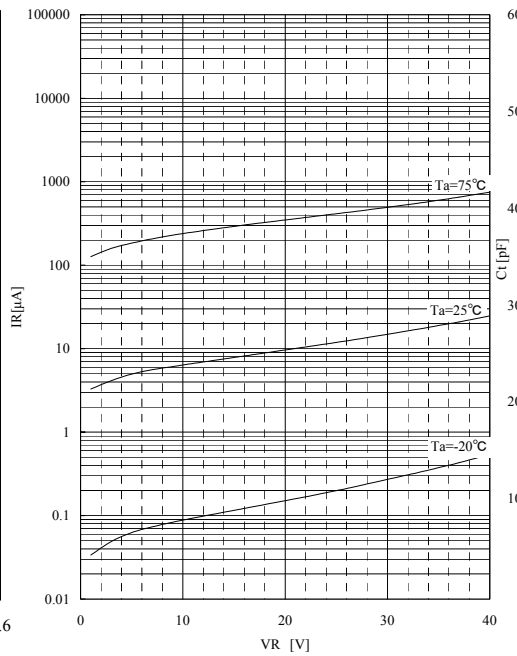
Semiconductor Company, Matsushita Electric Industrial Co.,Ltd.
1 Kotari-yakemachi, Nagaokakyo, Kyoto 617-8520, Japan
Tel. +81-75-951-8151
http://panasonic.co.jp/semicon

■ MA24D60

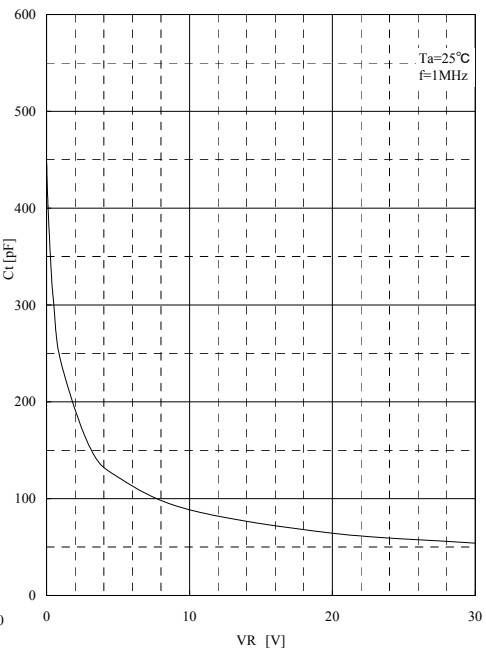
IF-VF Curve



IR-VR Curve

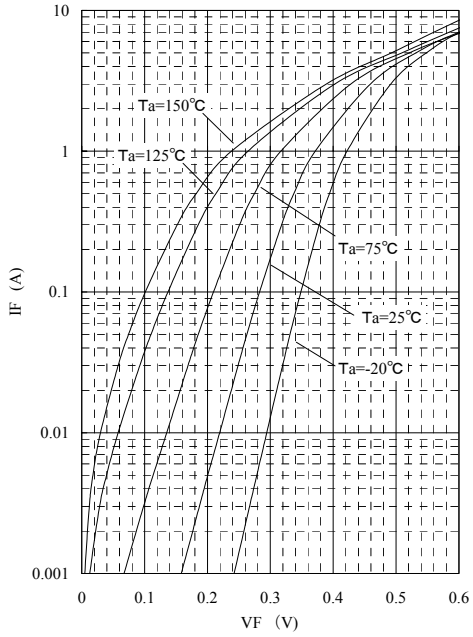


Ct-VR Curve

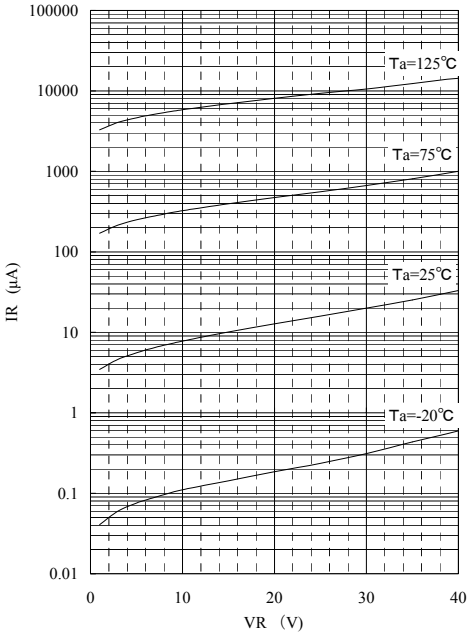


■ MA24D50

IF-VF Curve



IR-VR Curve



Ct-VR Curve