

XBS204S19R-G

Schottky Barrier Diode, 2A, 40V Type

FEATURES

Forward Voltage : $V_F=0.485V$ (TYP.)
 Forward Current : $I_{F(AV)}=2A$
 Repetitive Peak Reverse Voltage : $V_{RM}=40V$

ABSOLUTE MAXIMUM RATINGS

$T_a=25^\circ C$

PARAMETER	SYMBOL	RATINGS	UNITS
Repetitive Peak Reverse Voltage	V_{RM}	40	V
Reverse Voltage	V_R	40	V
Forward Current (Average)	$I_{F(AV)}$	2	A
Non Continuous Forward Surge Current ^(*)	I_{FSM}	50	A
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ C$

^(*) Non continuous high amplitude 60Hz half-sine wave.

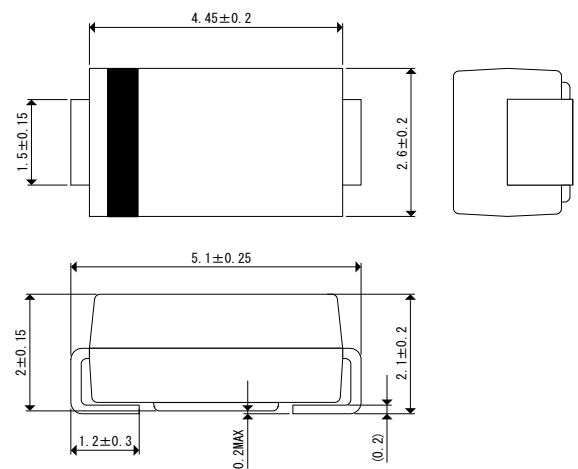
APPLICATIONS

- Rectification
- Protection against reverse connection of battery

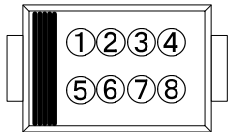
PACKAGING INFORMATION

SMA-XG

Unit : mm



MARKING RULE



①②③④⑤⑥: 204S19 (Product Number)
 ⑦⑧ : Assembly Lot Number

PRODUCT NAME

PRODUCT NAME	PACKAGE	ORDER UNIT
XBS204S19R-G *	SMA-XG	2,000pcs/Reel

* The "-G" suffix denotes Halogen and Antimony free as well as being fully EU RoHS compliant.

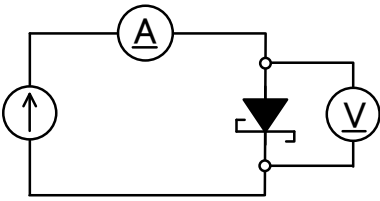
ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

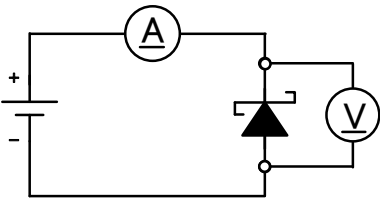
PARAMETER	SYMBOL	CONDITIONS	MIN.	TYP.	MAX.	UNITS	CIRCUIT
Forward Current	V_F	$I_F=2A$	-	0.485	0.54	V	①
Reverse Current	I_{R1}	$V_R=30V$	-	2.5	-	μA	②
	I_{R2}	$V_R=60V$	-	6	200	μA	②
Inter-Terminal Capacity	C_t	$V_R=1V, f=1MHz$	-	180	-	pF	③
Reverse Recovery Time	t_{rr}	$I_F=I_R=10mA, irr=1mA$	-	51	-	ns	④

TEST CIRCUITS

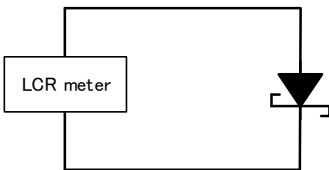
Circuit①



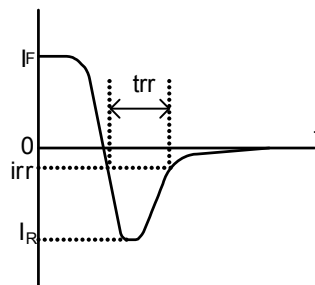
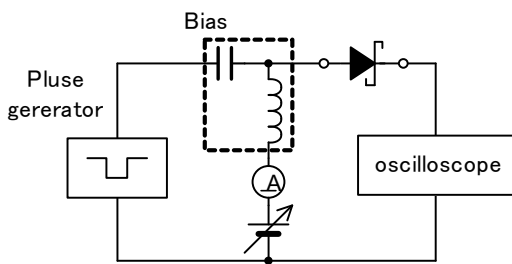
Circuit②



Circuit③



Circuit④

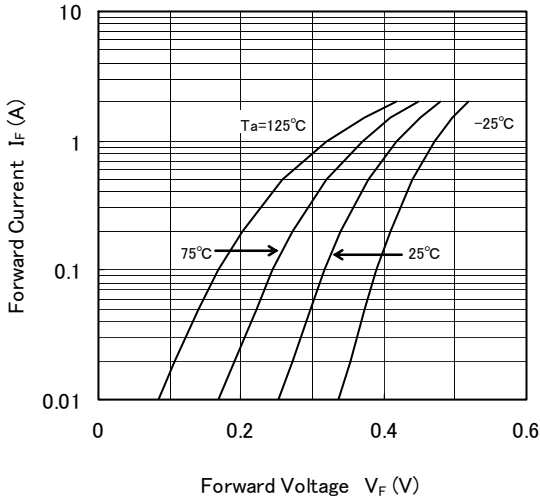


NOTES ON USE

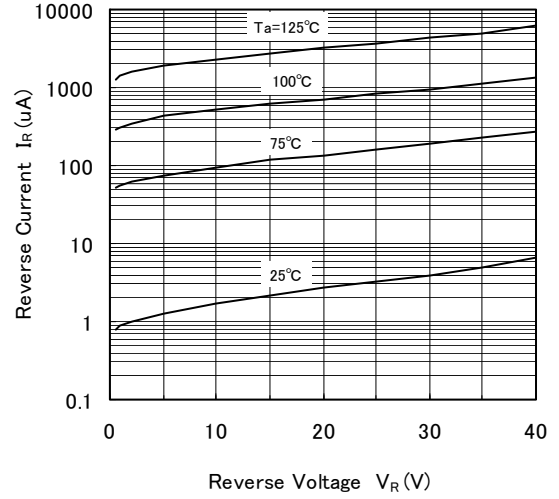
- 1) Please use this IC within the absolute maximum ratings.
- 2) Even within the ratings, in case of high load use continuously such as high temperature, high voltage, high current and thermal stress may cause reliability degradation of the IC. Adequate "Derating" should be taken into consideration while designing.
- 3) Torex places an importance on improving our products and their reliability. We request that users incorporate fail-safe designs and post-aging protection treatment when using Torex products in their systems.

TYPICAL PERFORMANCE CHARACTERISTICS

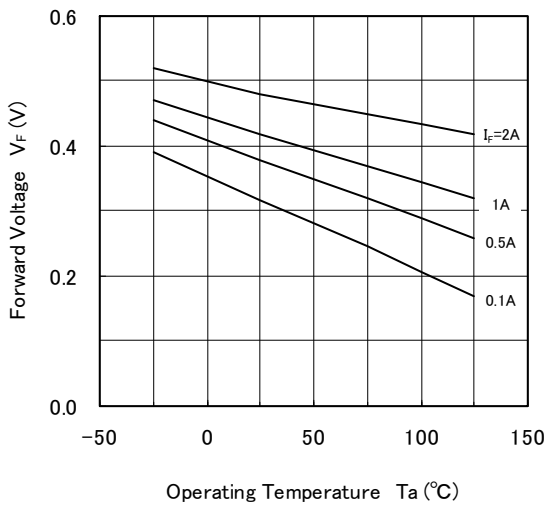
(1) Forward Current vs. Forward Voltage



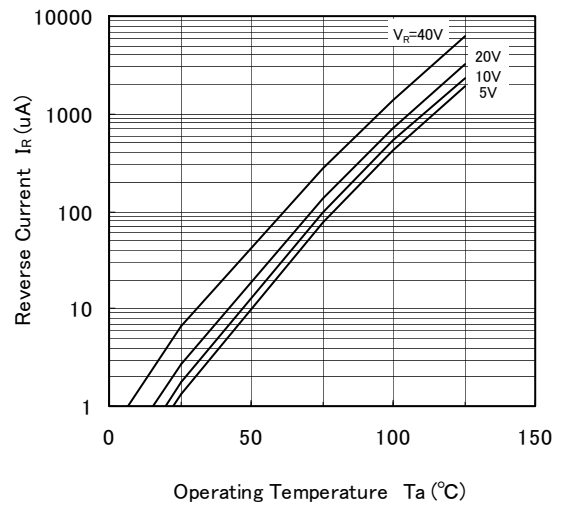
(2) Reverse Current vs. Reverse Voltage



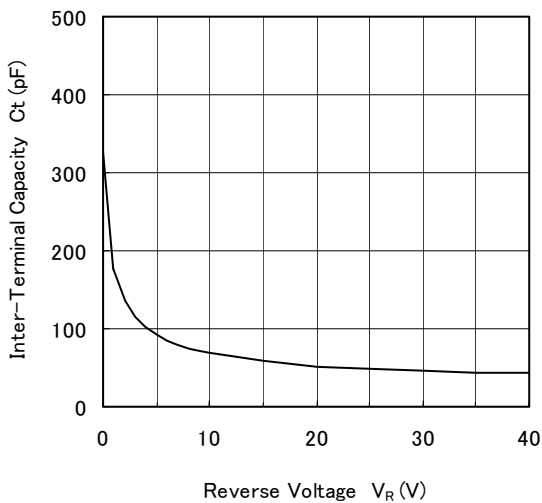
(3) Forward Voltage vs. Operating Temperature



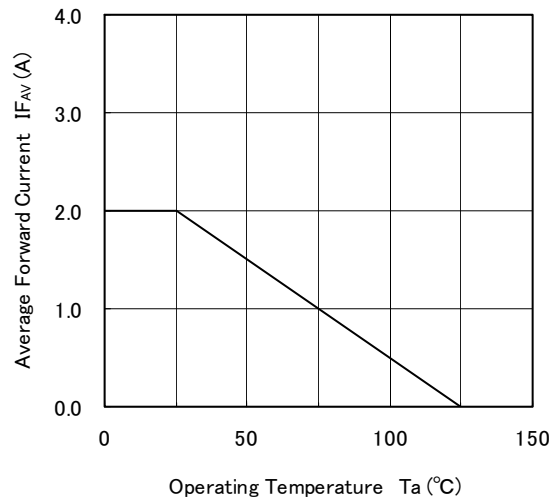
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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4. The product is neither intended nor warranted for use in equipment of systems which require extremely high levels of quality and/or reliability and/or a malfunction or failure which may cause loss of human life, bodily injury, serious property damage including but not limited to devices or equipment used in 1) nuclear facilities, 2) aerospace industry, 3) medical facilities, 4) automobile industry and other transportation industry and 5) safety devices and safety equipment to control combustions and explosions. Do not use the product for the above use unless agreed by us in writing in advance.
5. Although we make continuous efforts to improve the quality and reliability of our products; nevertheless Semiconductors are likely to fail with a certain probability. So in order to prevent personal injury and/or property damage resulting from such failure, customers are required to incorporate adequate safety measures in their designs, such as system fail safes, redundancy and fire prevention features.
6. Our products are not designed to be Radiation-resistant.
7. Please use the product listed in this datasheet within the specified ranges.
8. We assume no responsibility for damage or loss due to abnormal use.
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TOREX SEMICONDUCTOR LTD.



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Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

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- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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