

XBS306S17R-G

Schottky Barrier Diode, 3A, 60V Type

FEATURES

- Forward Voltage : $V_F=0.59V$ (TYP.)
- Forward Current : $I_{F(AVE)}=3A$
- Repetitive Peak Reverse Voltage : $V_{RM}=60V$

APPLICATIONS

- Rectification
- Protection against reverse connection of battery

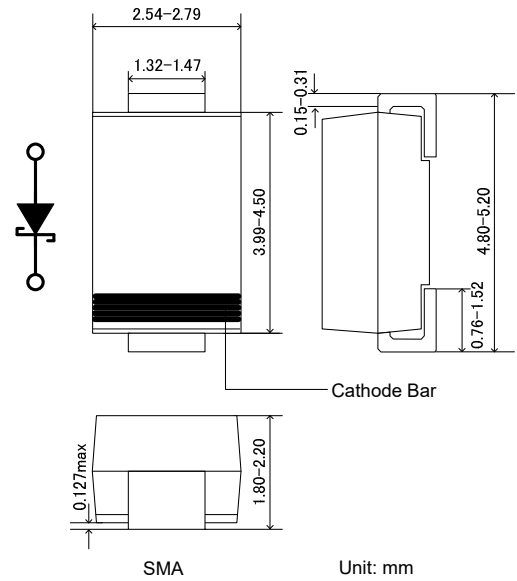
ABSOLUTE MAXIMUM RATINGS

$T_a=25^\circ C$

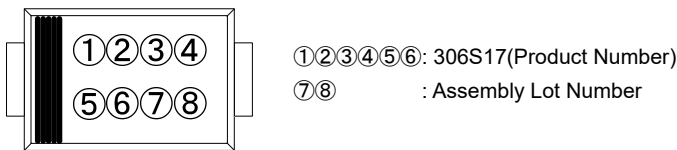
PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V_{RM}	60	V
Reverse Voltage (DC)	V_R	60	V
Forward Current (Average)	$I_{F(AVE)}$	3	A
Non Continuous Forward Surge Current ^{*1}	I_{FSM}	50	A
Junction Temperature	T_j	125	$^\circ C$
Storage Temperature Range	T_{stg}	-55~+150	$^\circ C$

*1 : Non continuous high amplitude 60Hz half-sine wave.

PACKAGING INFORMATION



MARKING RULE



PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS306S17 R-G	SMA (Halogen & Antimony free)
XBS306S17 R	SMA

* The "-G" suffix indicates that the products are Halogen and Antimony free as well as being fully RoHS compliant.

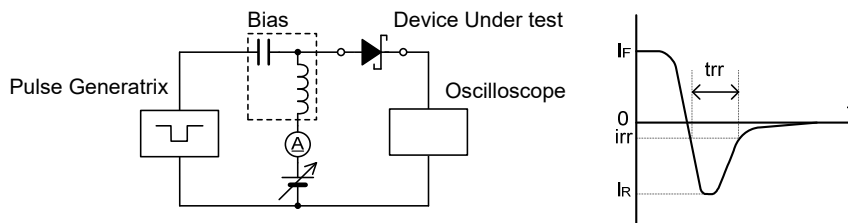
* The device orientation is fixed in its embossed tape pocket.

ELECTRICAL CHARACTERISTICS

$T_a=25^\circ C$

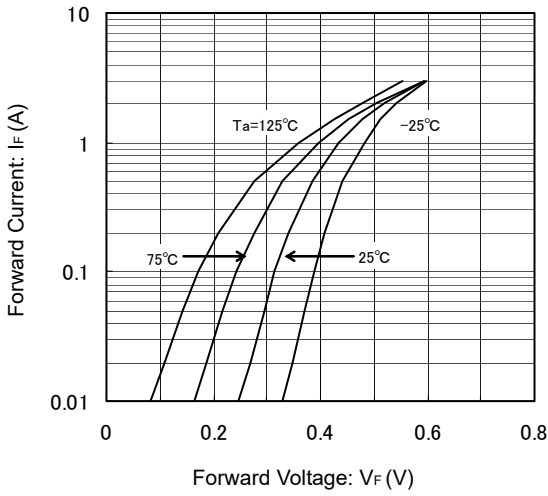
PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V_{F1}	$I_F=200\mu A$	-	0.145	-	V
	V_{F2}	$I_F=3A$	-	0.59	0.66	V
Reverse Current	I_{R1}	$V_R=30V$	-	3	-	μA
	I_{R2}	$V_R=60V$	-	9	300	μA
Inter-Terminal Capacity	C_t	$V_R=1V, f=1MHz$	-	195	-	pF
Reverse Recovery Time ^{*2}	t_{rr}	$I_F=I_{R1}=10mA, i_{rr}=1mA$	-	55	-	ns

*2 : t_{rr} measurement circuit

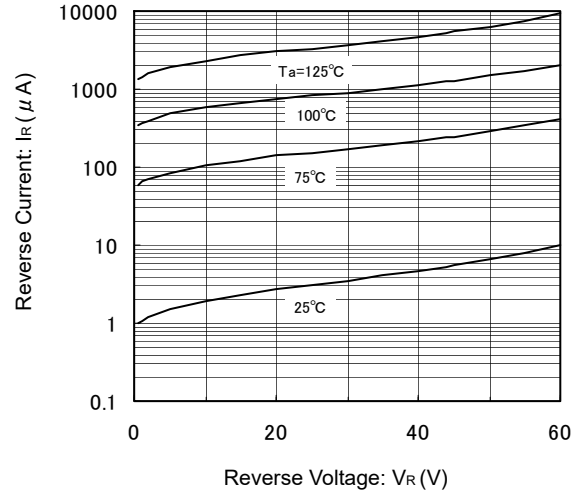


TYPICAL PERFORMANCE CHARACTERISTICS

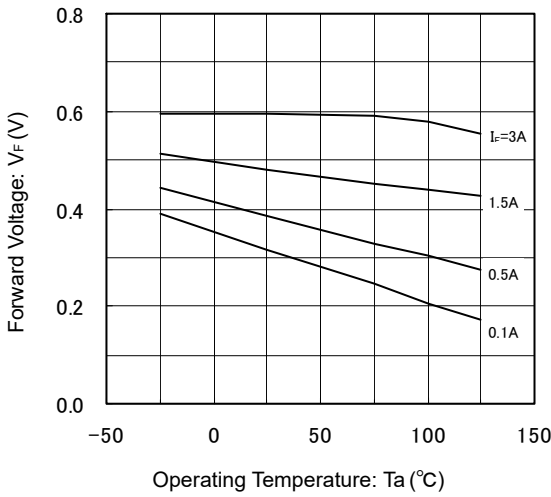
(1) Forward Current vs. Forward Voltage



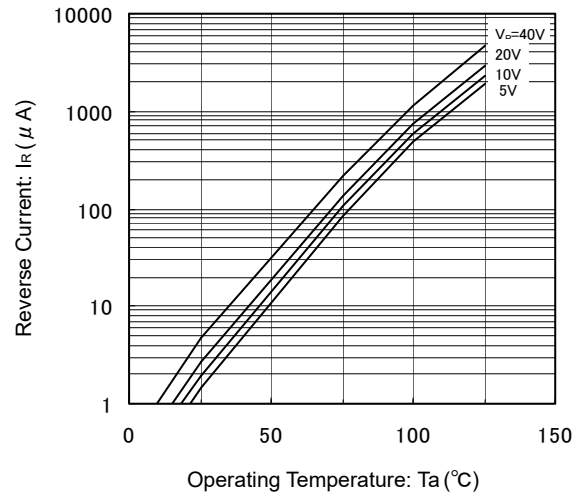
(2) Reverse Current vs. Reverse Voltage



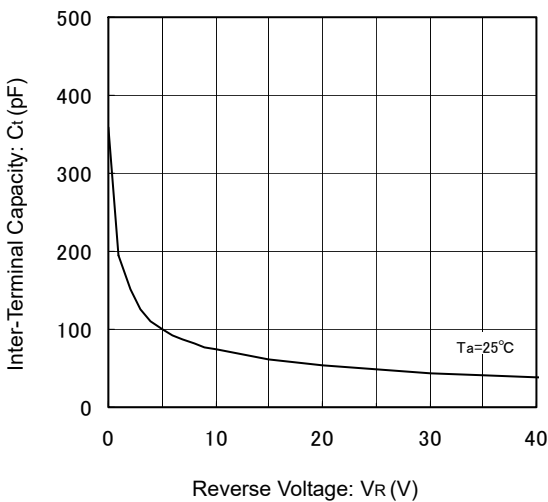
(3) Forward Voltage vs. Operating Temperature



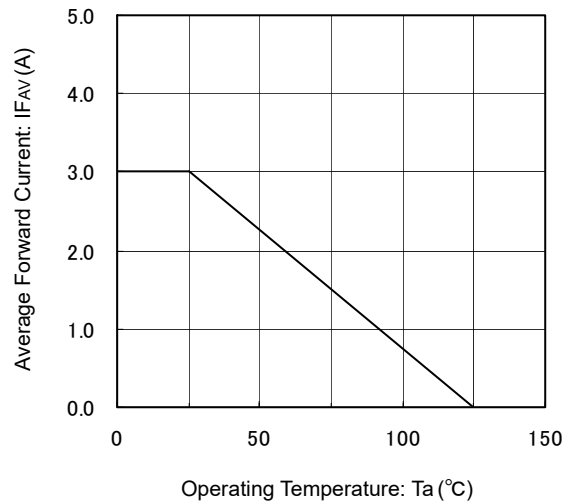
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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