

XBS304S17

ETR1615-002

Schottky Barrier Diode, 3A, 40V Type

FEATURES

- Forward Voltage : $V_F=0.465V$ (TYP.)
- Forward Current : $I_{F(AV)}=3A$
- Repetitive Peak Reverse Voltage : $V_{RM}=40V$

APPLICATIONS

- Rectification
- Protection against reverse connection of battery

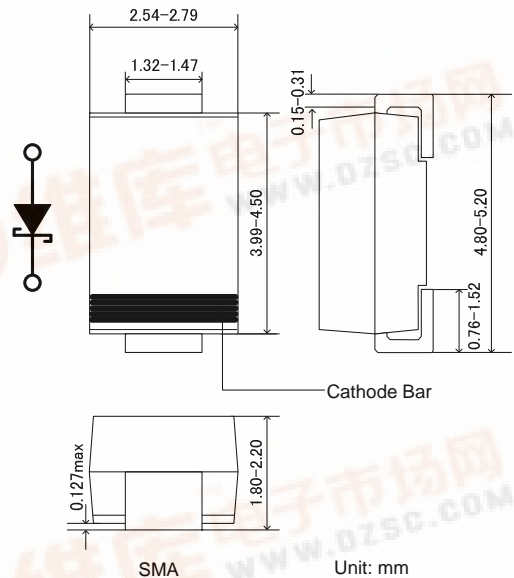
ABSOLUTE MAXIMUM RATINGS

Ta=25

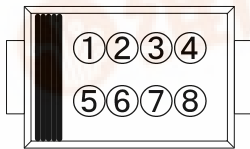
PARAMETER	SYMBOL	RATINGS	UNIT
Repetitive Peak Reverse Voltage	V_{RM}	40	V
Reverse Voltage (DC)	V_R	40	V
Forward Current (Average)	$I_{F(AV)}$	3	A
Non Continuous Forward Surge Current*1	I_{FSM}	60	A
Junction Temperature	T_j	125	
Storage Temperature Range	T_{stg}	-55 ~ +150	

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

PACKAGING INFORMATION



MARKING RULE



- : 304S17(Product Number)
- : Assembly Lot Number

PRODUCT NAME

PRODUCT NAME	DEVICE ORIENTATION
XBS304S17	R : Embossed tape, standard feed

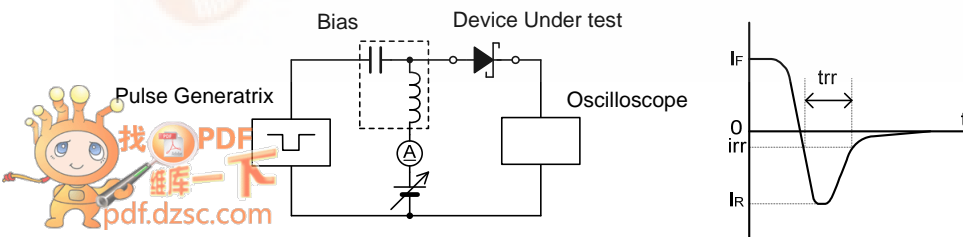
* Please put the device orientation type "R".

ELECTRICAL CHARACTERISTICS

Ta=25

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN.	TYP.	MAX.	
Forward Voltage	V_{F1}	$I_F=200 \mu A$	-	0.135	-	V
	V_{F2}	$I_F=3A$	-	0.465	0.51	V
Reverse Current	I_{R1}	$V_R=20V$	-	5	-	μA
	I_{R2}	$V_R=40V$	-	15	300	μA
Inter-Terminal Capacity	C_t	$V_R=1V, f=1MHz$	-	180	-	pF
Reverse Recovery Time*2	t_{rr}	$I_F=I_R=10mA, i_{rr}=1mA$	-	82	-	ns

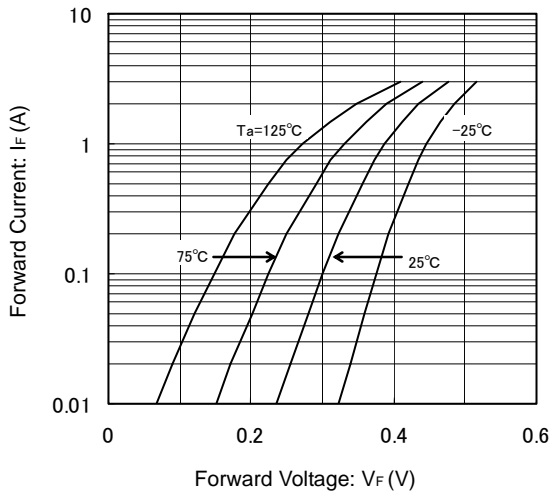
*2 : t_{rr} measurement circuit



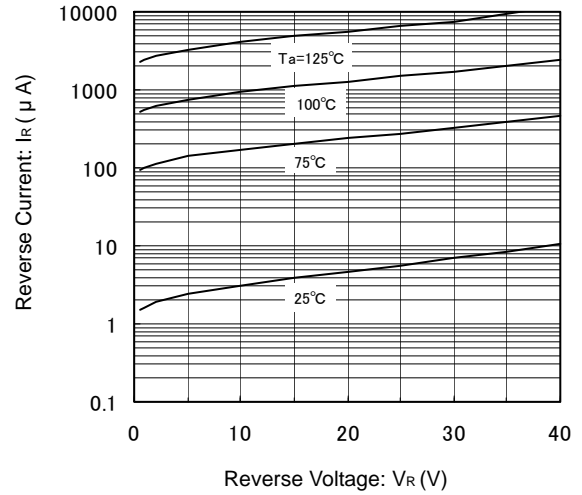
XBS304S17

TYPICAL PERFORMANCE CHARACTERISTICS

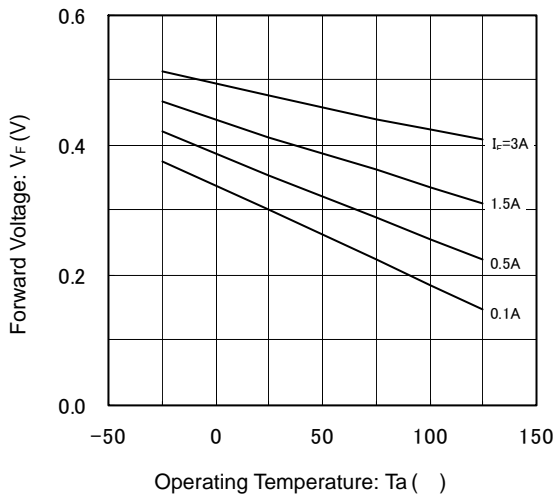
(1) Forward Current vs. Forward Voltage



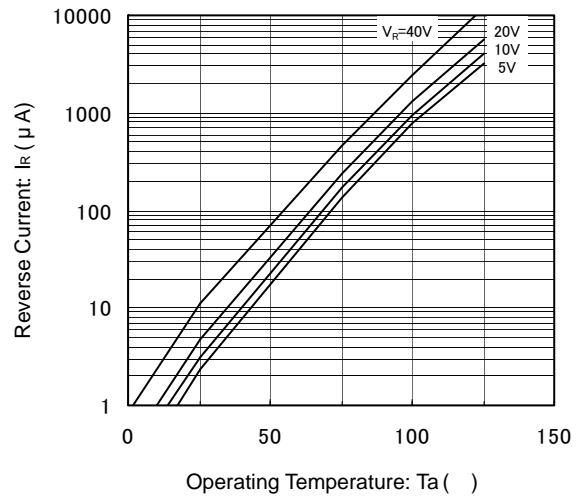
(2) Reverse Current vs. Reverse Voltage



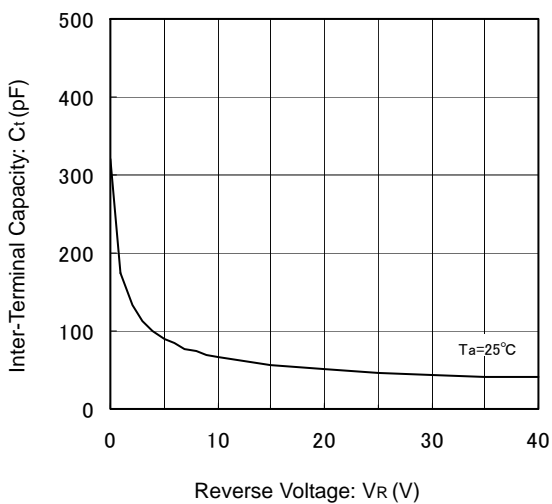
(3) Forward Voltage vs. Operating Temperature



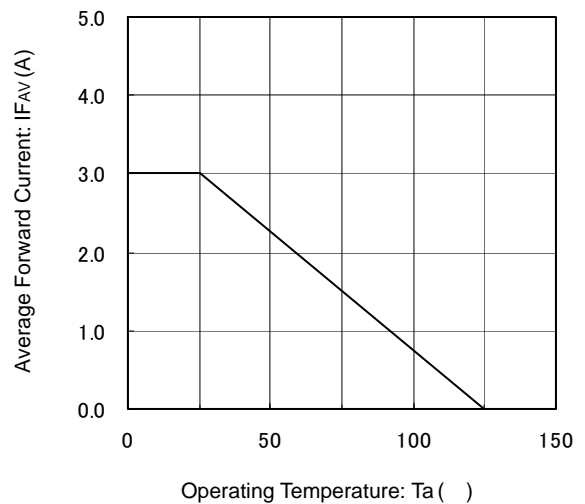
(4) Reverse Current vs. Operating Temperature



(5) Inter-Terminal Capacity vs. Reverse Voltage



(6) Average Forward Current vs. Operating Temperature



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