

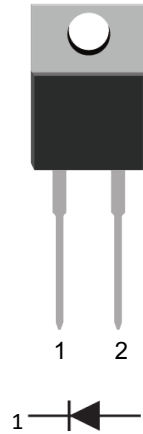
5A, 400V Fast Recovery Epitaxial Rectifiers

FEATURES

- Fast recovery epitaxial diode wafer
- Fast switching for high efficiency
- High efficiency, low power loss
- High temperature soldering guaranteed: 270 °C/10 seconds
- RoHS compliant

MECHANICAL DATA

- Case: TO-220AC
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

TO-220AC


RoHS
COMPLIANT
HALOGEN
FREE
AVAILABLE

TYPICAL APPLICATION

General purpose use in AC to DC bridge full wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment, high frequency and free wheeling diode circuit.

MAXIMUM RATINGS

$T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	400	V
Average Forward Rectified Current	$I_{F(AV)}$	5	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	80	A
Operating Junction Temperature Range	T_J	-55 to +175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

$T_A=25^\circ\text{C}$ unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=1\text{A}$	$T_A=25^\circ\text{C}$	V_F	0.9	1.1	V
	$T_A=125^\circ\text{C}$		0.75	0.9	
Forward Voltage@ $I_F=5\text{A}$	$T_A=25^\circ\text{C}$		1.05	1.3	
	$T_A=125^\circ\text{C}$		0.8	1.0	
Reverse Current @ V_{RRM}	$T_A=25^\circ\text{C}$	I_R	0.02	1	μA
	$T_A=125^\circ\text{C}$		35	100	
Reverse Recovery Time	$I_F=0.5\text{A}$, $I_R=1\text{A}$, $I_{RR}=0.25\text{A}$	T_{RR}	35		nS

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RATINGS AND CHARACTERISTIC CURVES

$T_A=25^\circ\text{C}$ unless otherwise noted

FIG.1: Forward Output Current Derating Curve

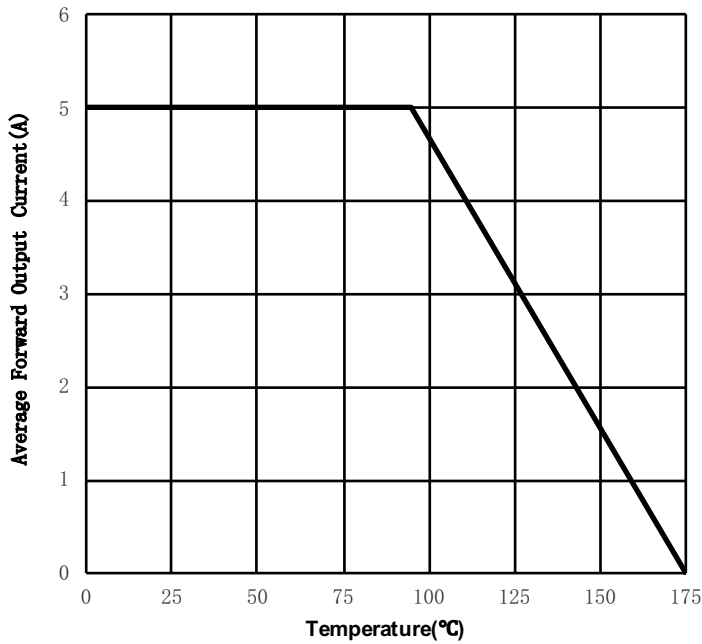


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

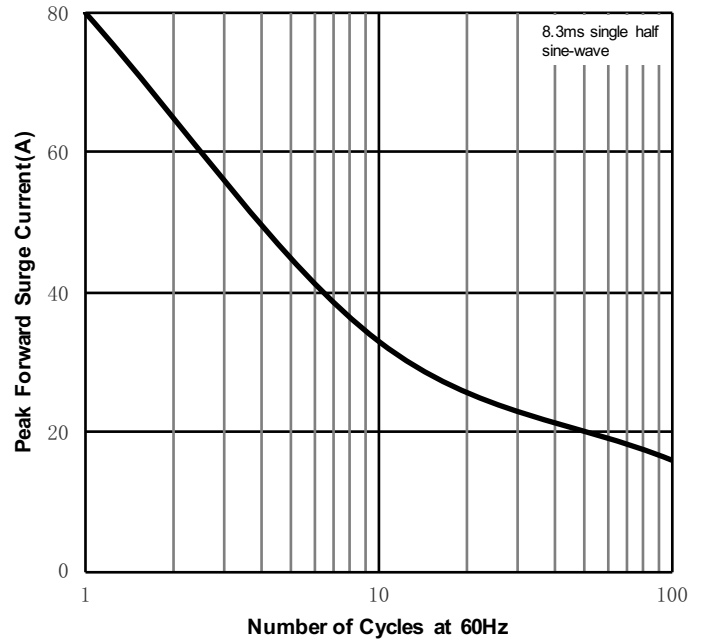


FIG.3: Typical Forward Characteristics

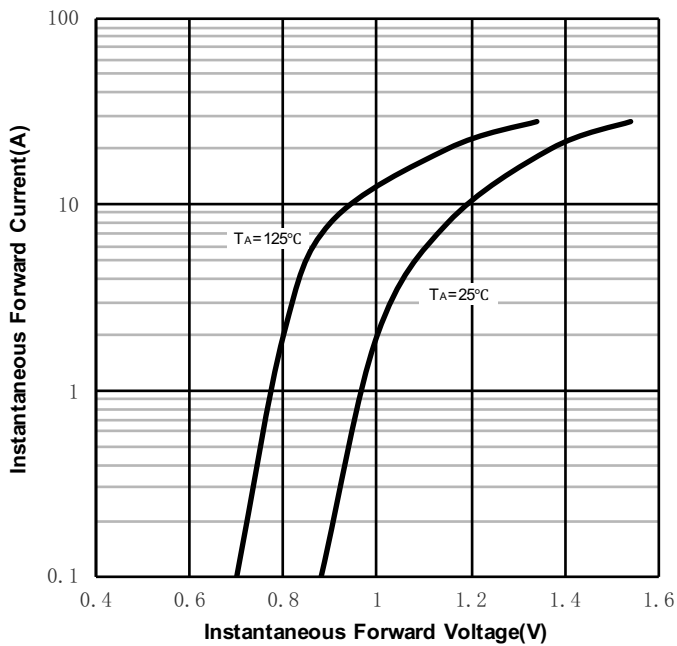
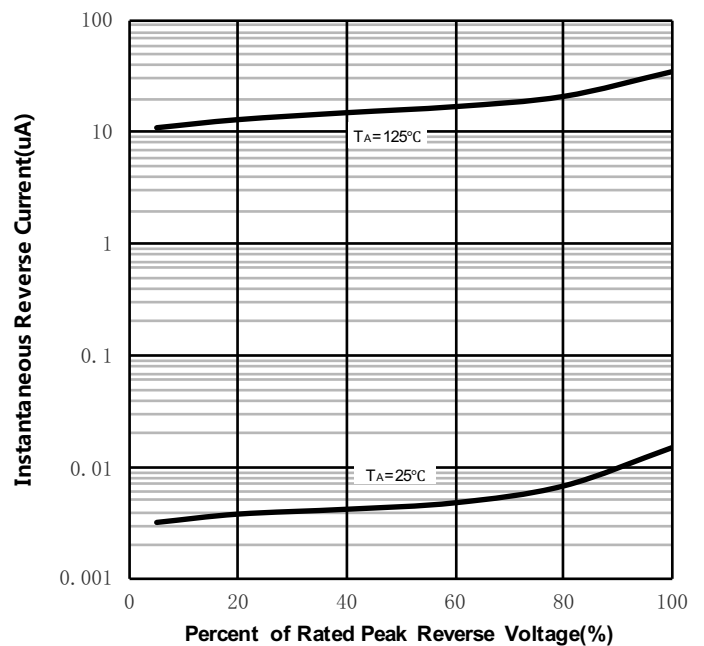
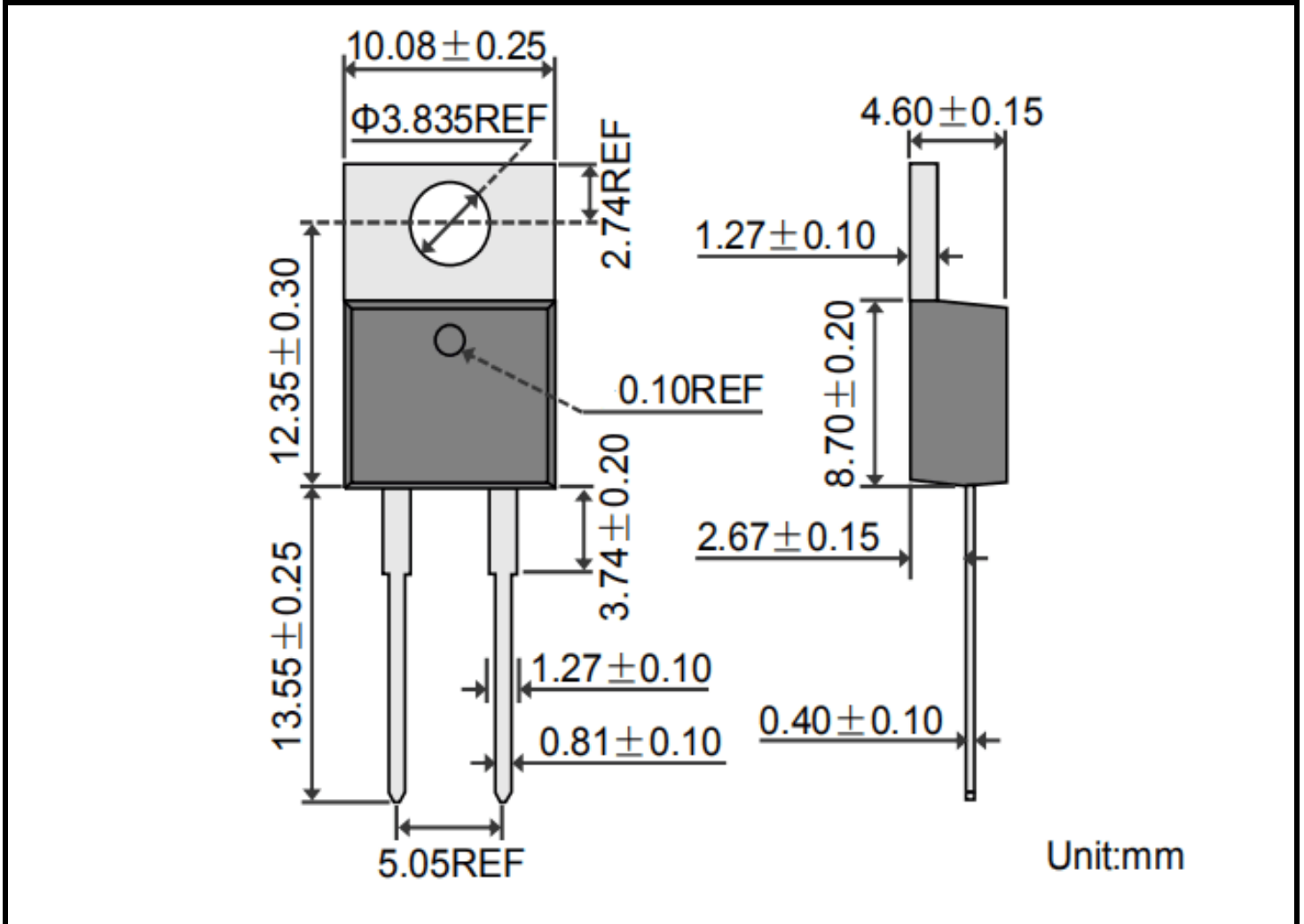


FIG.4: Typical Reverse Characteristics



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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

Package	Tube(PCS)	Inner Box(PCS)	Carton(PCS)
TO-220AC	50	1,000	5,000