

## 80A, 45V Low Forward Voltage Schottky Rectifier

### FEATURES

- Trench MOS schottky barrier rectifier
- Low forward voltage drop
- High efficiency, low power loss
- High temperature soldering guaranteed: 270°C/10 seconds
- RoHS compliant

### MECHANICAL DATA

- Case: TO-247
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

### TYPICAL APPLICATION

General purpose use in AC to DC bridge full wave rectification for SMPS, lighting, adapter, charger, home appliance, office equipment and telecommunication.

### MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	45	V
Average Forward Rectified Current	$I_{F(AV)}$	80	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	400	A
Operating Junction Temperature Range	$T_J$	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

### ELECTRICAL CHARACTERISTICS

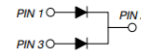
$T_A=25^\circ\text{C}$  unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage @ $I_F=40\text{A}$	$T_A=25^\circ\text{C}$	$V_F$	0.55	0.58	V
	$T_A=125^\circ\text{C}$		0.5	0.53	V
Reverse Current @ $V_{RRM}$	$T_A=25^\circ\text{C}$	$I_R$	25	70	$\mu\text{A}$
	$T_A=125^\circ\text{C}$		10	50	mA
Typical Thermal Resistance		$R_{\theta JC}$	0.9		$^\circ\text{C/W}$

TO-247



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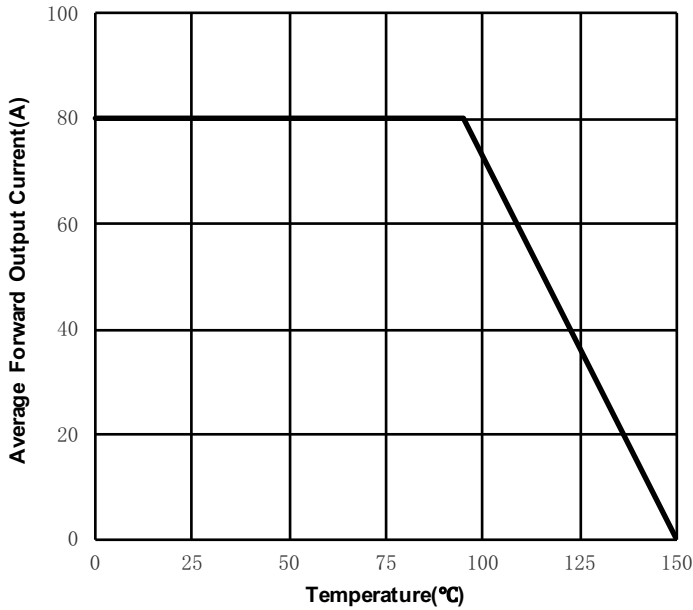
RoHS  
COMPLIANT  
HALOGEN  
FREE  
AVAILABLE

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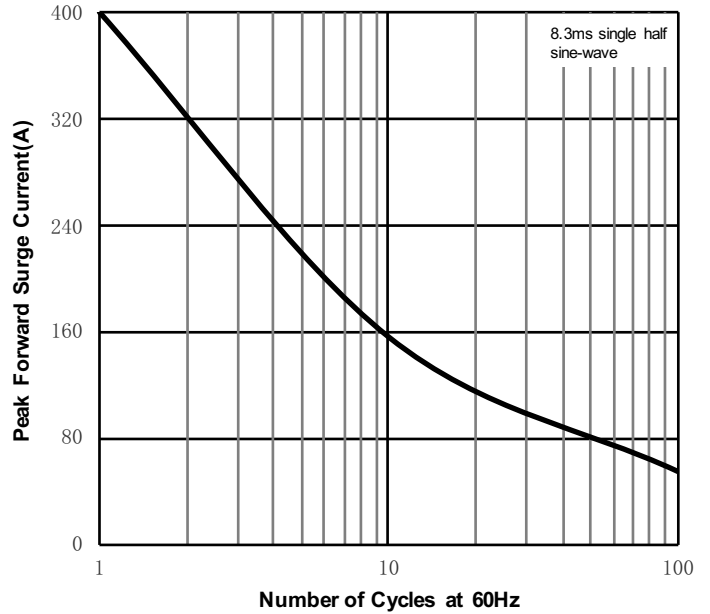
### RATINGS AND CHARACTERISTIC CURVES

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

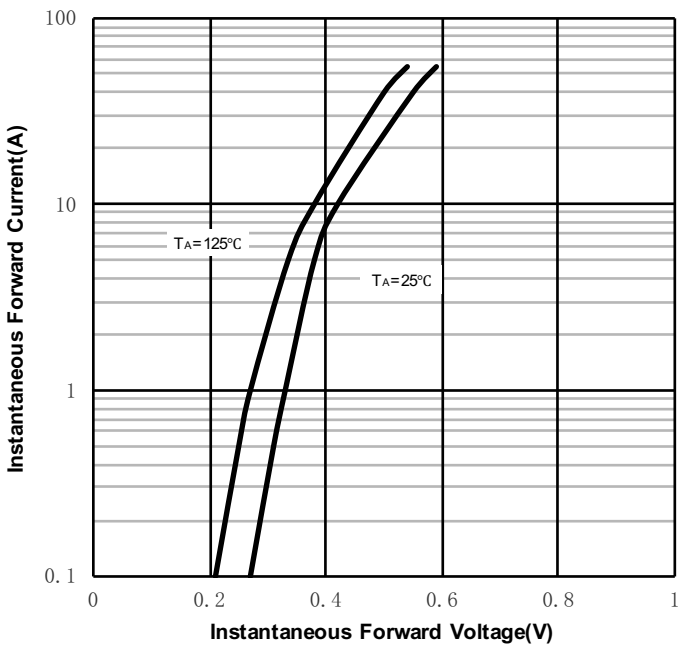
**FIG.1: Forward Output Current Derating Curve**



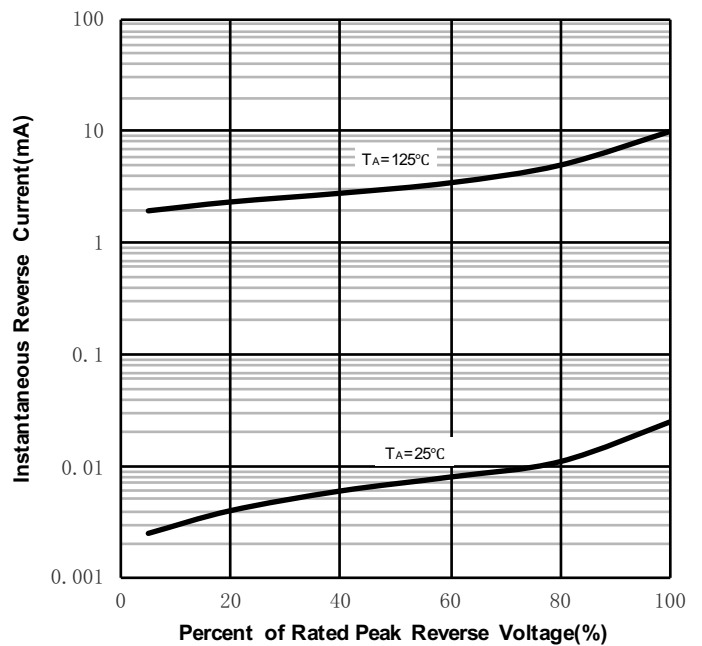
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

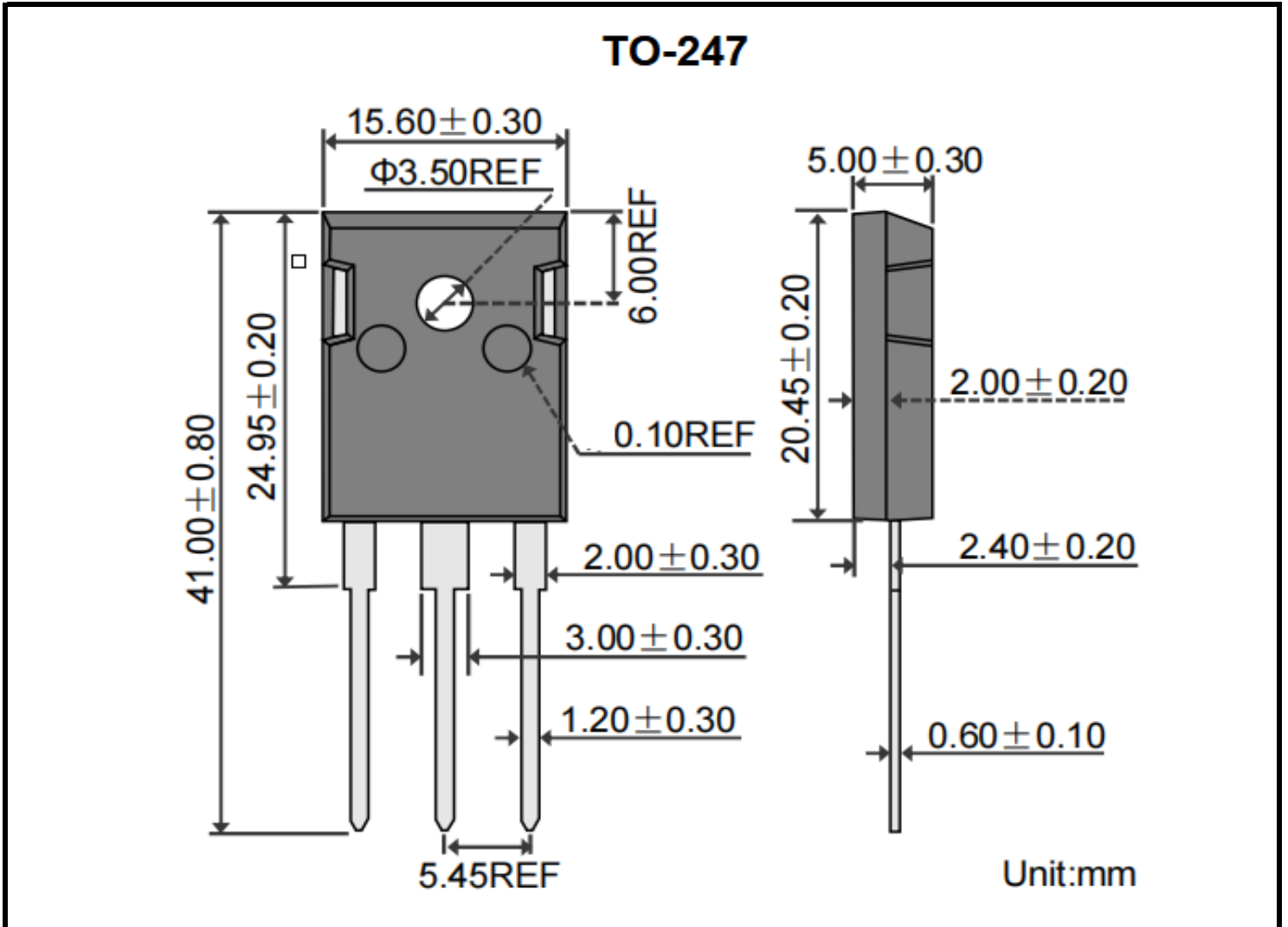


**FIG.4: Typical Reverse Characteristics**



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PACKAGE OUTLINE DIMENSIONS



PACKING INFORMATION

Package	Tube(PCS)	Inner Box(PCS)	Carton(PCS)
TO-247	30	360	1,800