

## 40A, 300V Low Forward Voltage Schottky Rectifiers

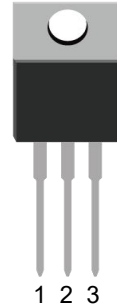
### FEATURES

- Planar MOS schottky rectifier
- Low forward voltage drop
- High efficiency, low power loss
- High temperature soldering guaranteed:  
 270°C/10 seconds for TO-220AB and ITO-220AB  
 260°C/10 seconds for TO-263AB
- RoHS compliant

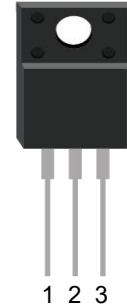
### MECHANICAL DATA

- Case: TO-220AB, ITO-220AB, TO-263AB
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

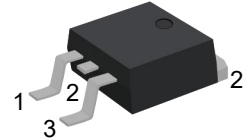
TO-220AB



ITO-220AB



TO-263AB



RoHS  
COMPLIANT

HALOGEN  
FREE  
AVAILABLE

P/N	Package
SP40300CT	TO-220AB
SP40300FCT	ITO-220AB
SP40300TA	TO-263AB

### TYPICAL APPLICATION

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

### MAXIMUM RATINGS

T<sub>A</sub>=25°C unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V <sub>RRM</sub>	300	V
Average Forward Rectified Current	I <sub>F(AV)</sub>	40	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	280	A
Operating Junction Temperature Range	T <sub>J</sub>	-55 to +150	°C
Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS

T<sub>A</sub>=25°C unless otherwise noted

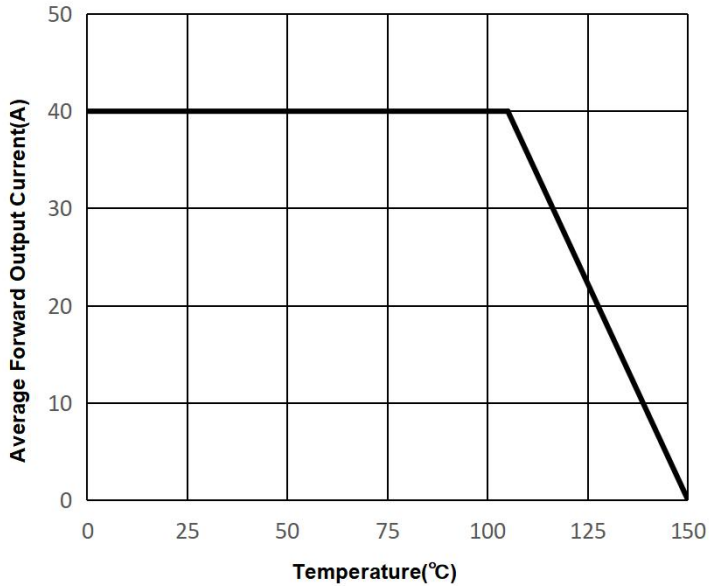
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ I <sub>F</sub> =20A	T <sub>A</sub> =25°C	V <sub>F</sub>	0.9	0.95	V
	T <sub>A</sub> =125°C		0.81	0.85	
Reverse Current @ V <sub>RRM</sub>	T <sub>A</sub> =25°C	I <sub>R</sub>	1	10	uA
	T <sub>A</sub> =125°C		600	5000	
Typical Thermal Resistance		R <sub>θJC</sub>			°C/W
TO-220AB			2		
ITO-220AB			4		
TO-263AB			5		

# 40A, 300V Low Forward Voltage Schottky Rectifiers

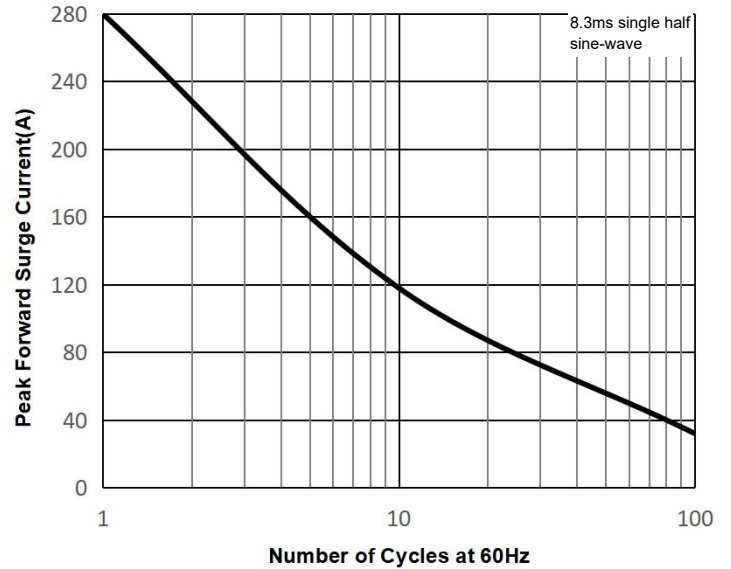
## RATINGS AND CHARACTERISTIC CURVES

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

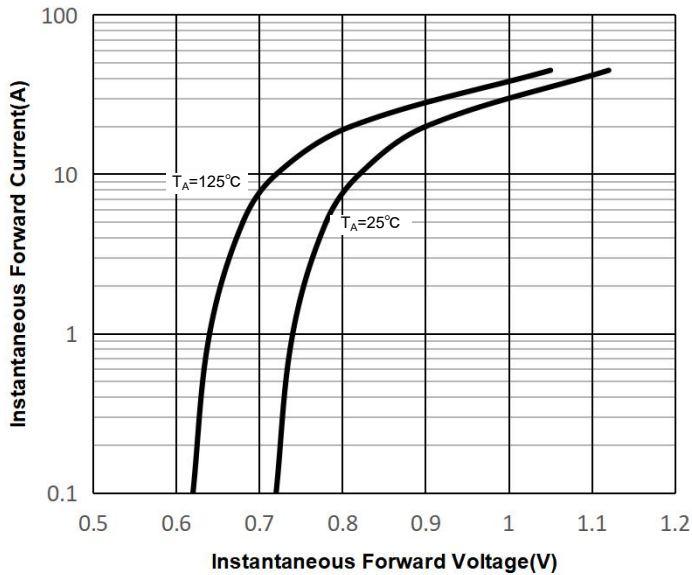
**FIG.1: Forward Output Current Derating Curve**



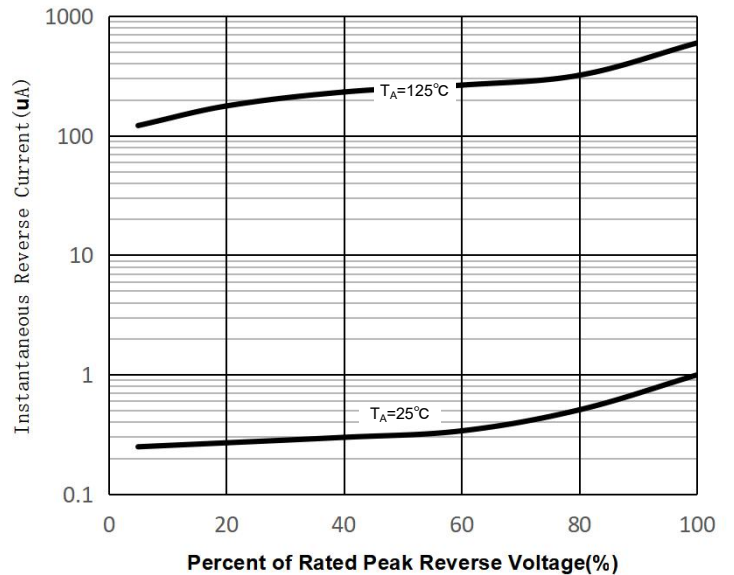
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**

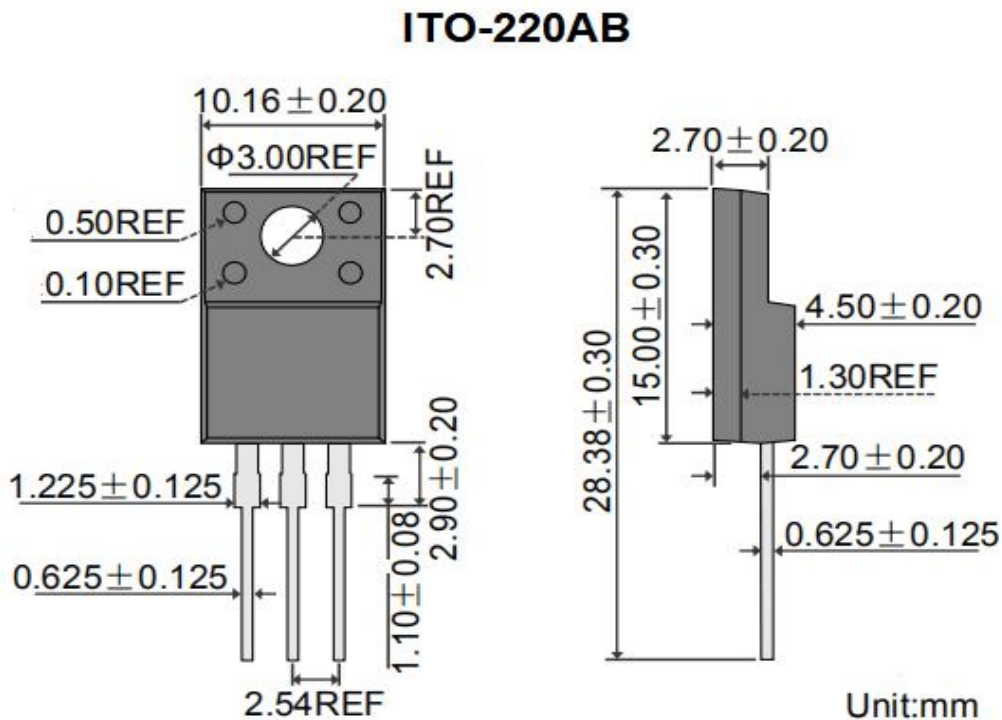
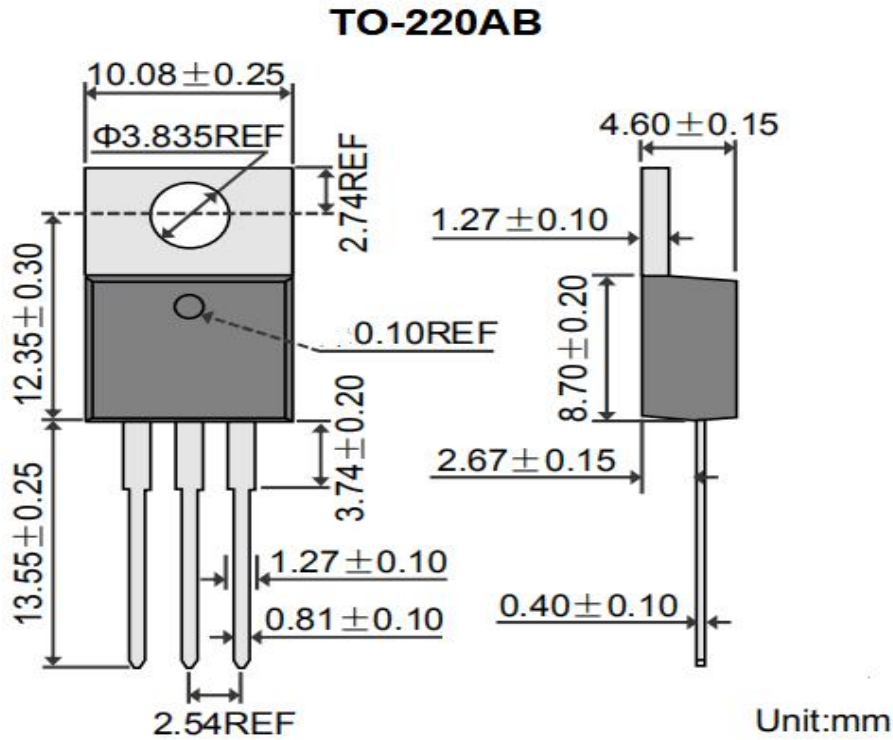


**FIG.4: Typical Reverse Characteristics**



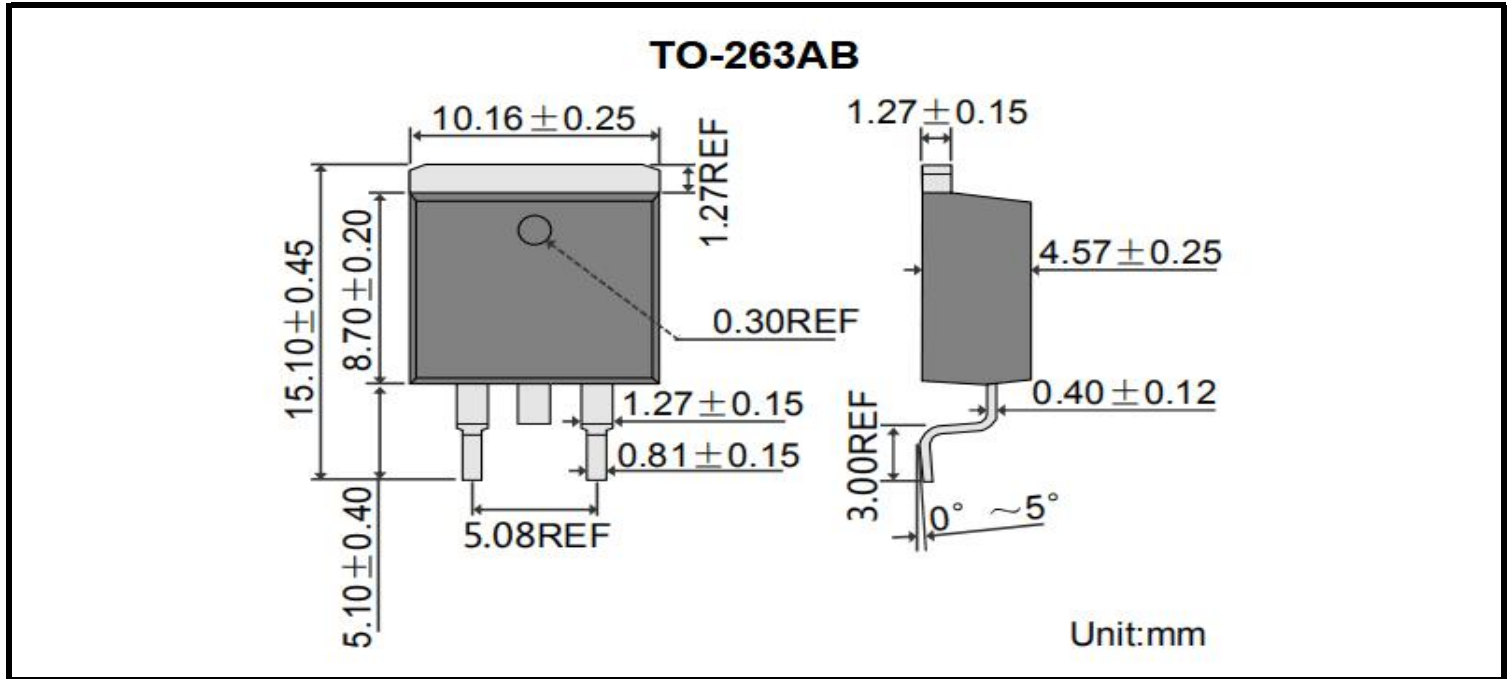
## 40A, 300V Low Forward Voltage Schottky Rectifiers

### PACKAGE OUTLINE DIMENSIONS



## 40A, 300V Low Forward Voltage Schottky Rectifiers

### PACKAGE OUTLINE DIMENSIONS



### PACKING INFORMATION

Package	Tube(PCS)	Inner Box(PCS)	Carton(PCS)
TO-220AB	50	1,000	5,000
ITO-220AB	50	1,000	5,000
TO-263AB	50	1,000	5,000