

## 20A, 300V Low Forward Voltage Schottky Rectifiers

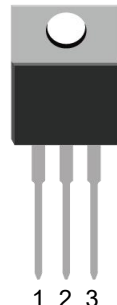
### FEATURES

- 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

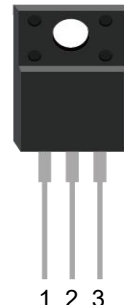
**RoHS**  
COMPLIANT

**HALOGEN**  
**FREE**  
AVAILABLE

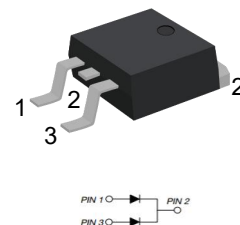
TO-220AB



ITO-220AB



TO-263AB



### 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

P/N	Package
SP20V300CT	TO-220AB
SP20V300FCT	ITO-220AB
SP20V300TA	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>	20	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	120	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

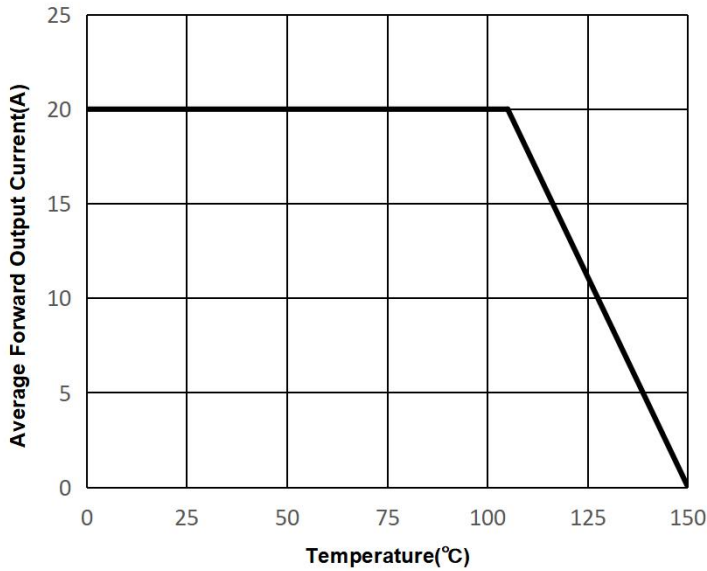
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ I <sub>F</sub> =10A	T <sub>A</sub> =25°C	V <sub>F</sub>	0.92	0.96	V
	T <sub>A</sub> =125°C		0.79	0.82	
Reverse Current @ V <sub>RRM</sub>	T <sub>A</sub> =25°C	I <sub>R</sub>	1	10	uA
	T <sub>A</sub> =125°C		600	5000	
Typical Thermal Resistance		R <sub>θJC</sub>			°C/W
	TO-220AB		2		
	ITO-220AB		4		
TO-263AB			2		

# 20A, 300V Low Forward Voltage Schottky Rectifiers

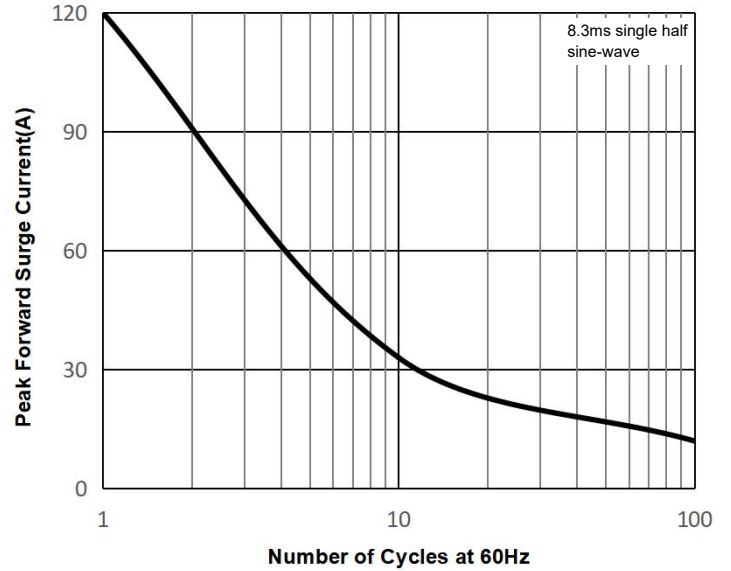
## RATINGS AND CHARACTERISTIC CURVES

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

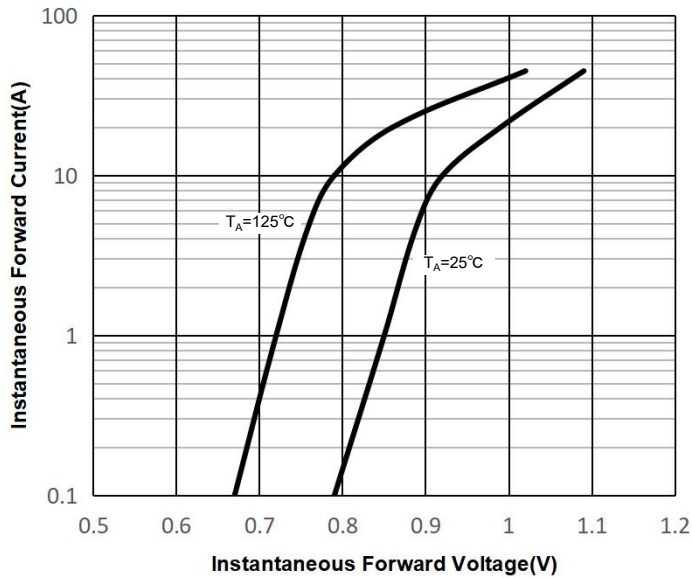
**FIG.1: Forward Output Current Derating Curve**



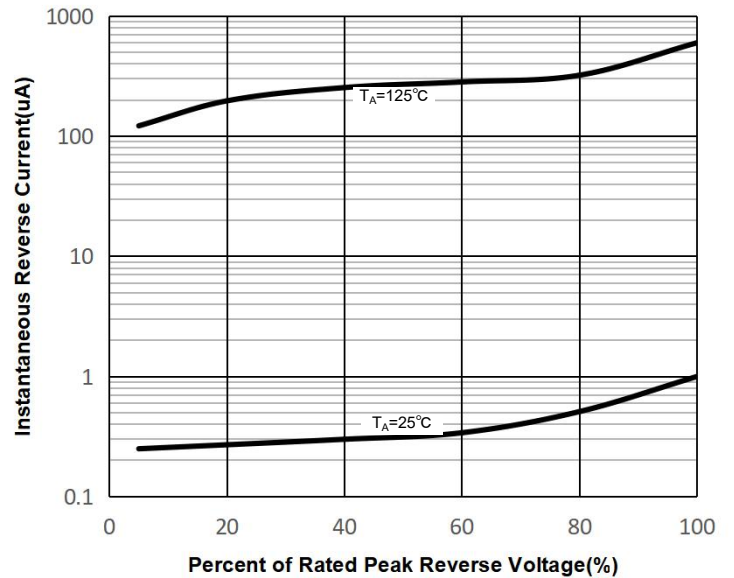
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**



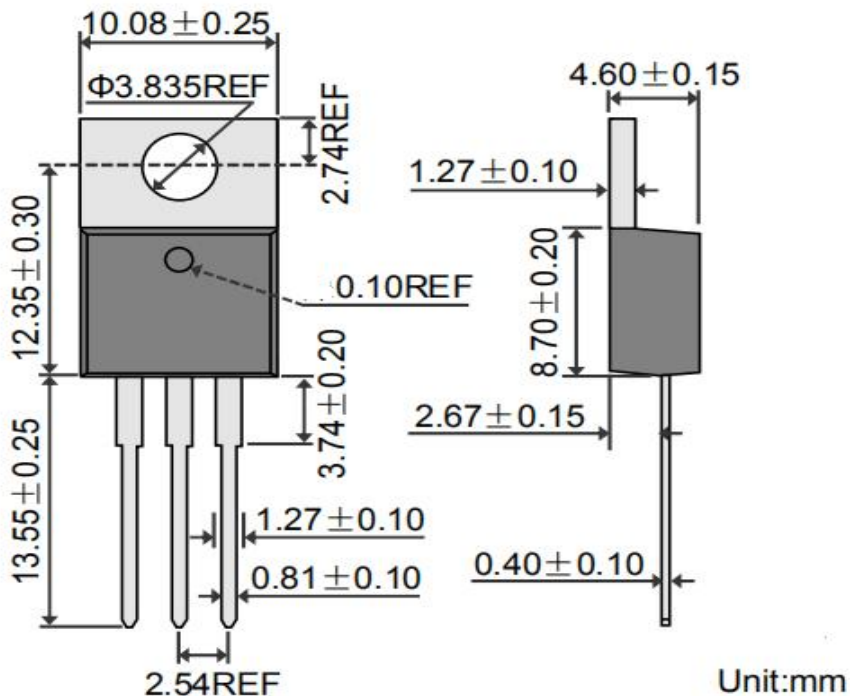
**FIG.4: Typical Reverse Characteristics**



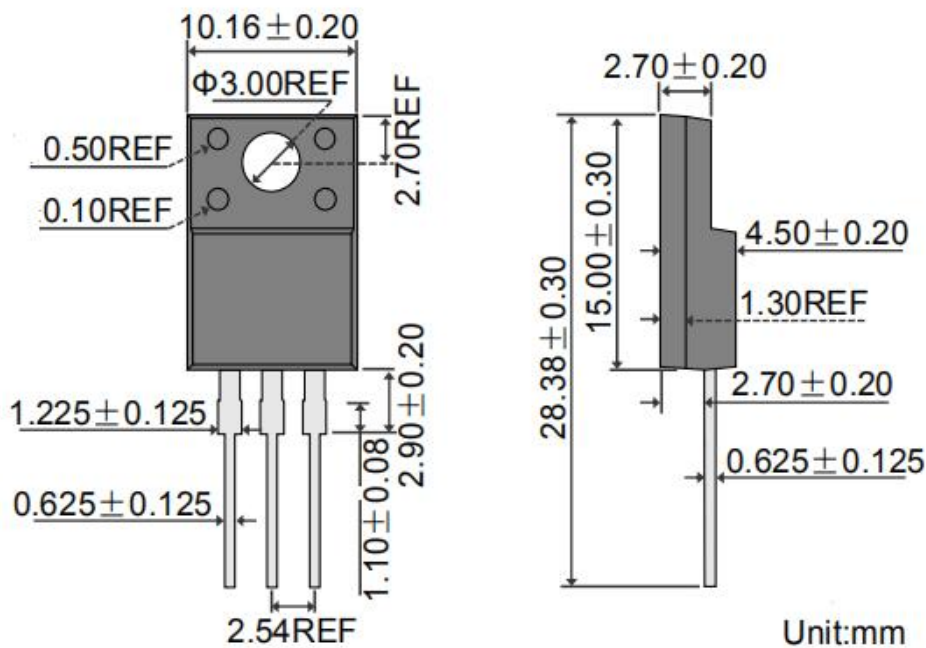
## 20A, 300V Low Forward Voltage Schottky Rectifiers

### PACKAGE OUTLINE DIMENSIONS

#### TO-220AB

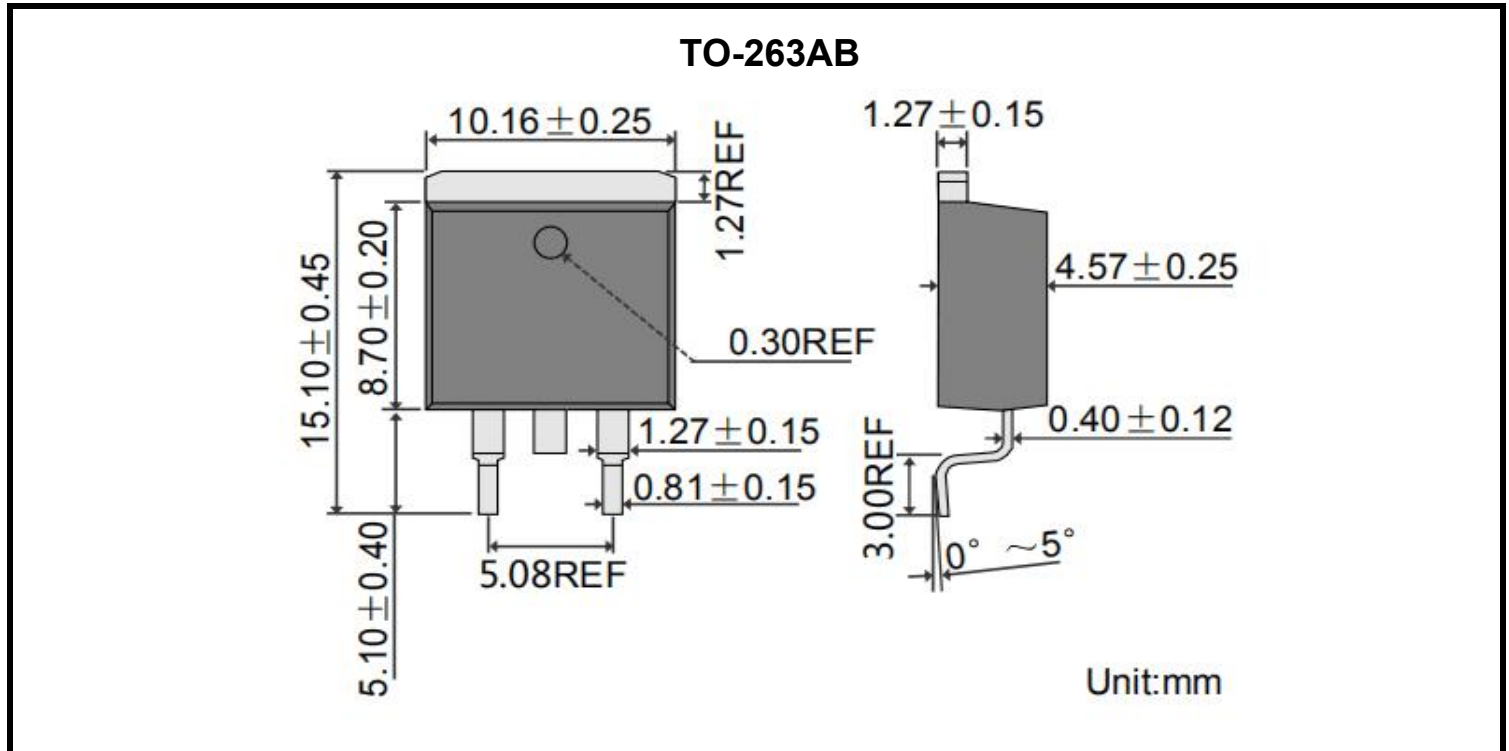


#### ITO-220AB



## 20A, 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