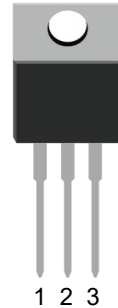


## 10A, 300V Low Forward Voltage Schottky Rectifiers

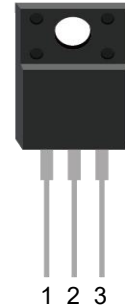
### FEATURES

- Planar MOS schottky rectifiers
- 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

TO-220AB



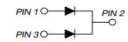
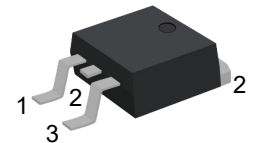
ITO-220AB



RoHS  
COMPLIANT

HALOGEN  
FREE  
AVAILABLE

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
SP10300CT	TO-220AB
SP10300FCT	ITO-220AB
SP10300TA	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>	10	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I <sub>FSM</sub>	100	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

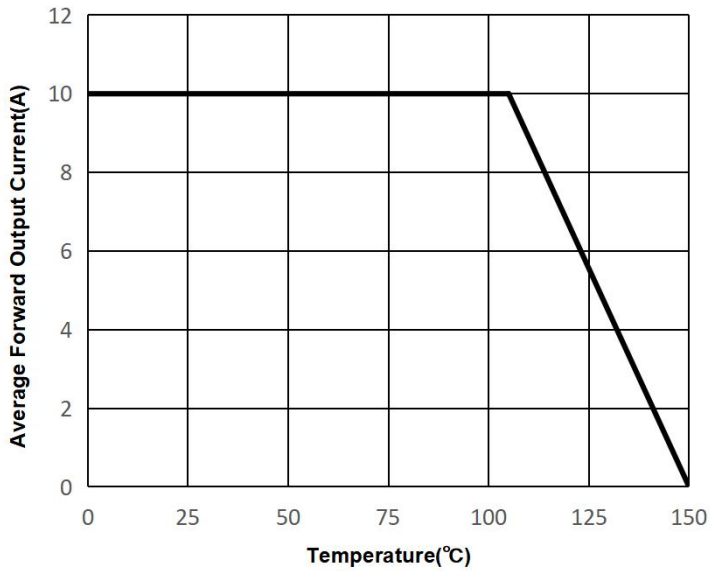
Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ I <sub>F</sub> =5A per leg	T <sub>A</sub> =25°C	V <sub>F</sub>	0.89	0.92	V
	T <sub>A</sub> =125°C		0.76	0.79	
Reverse Current @ V <sub>RRM</sub>	T <sub>A</sub> =25°C	I <sub>R</sub>	1	10	uA
	T <sub>A</sub> =125°C		0.6	5	mA
Typical Thermal Resistance		R <sub>θJC</sub>			°C/W
TO-220AB			2		
ITO-220AB			4		
TO-263AB			15		

# 10A, 300V Low Forward Voltage Schottky Rectifiers

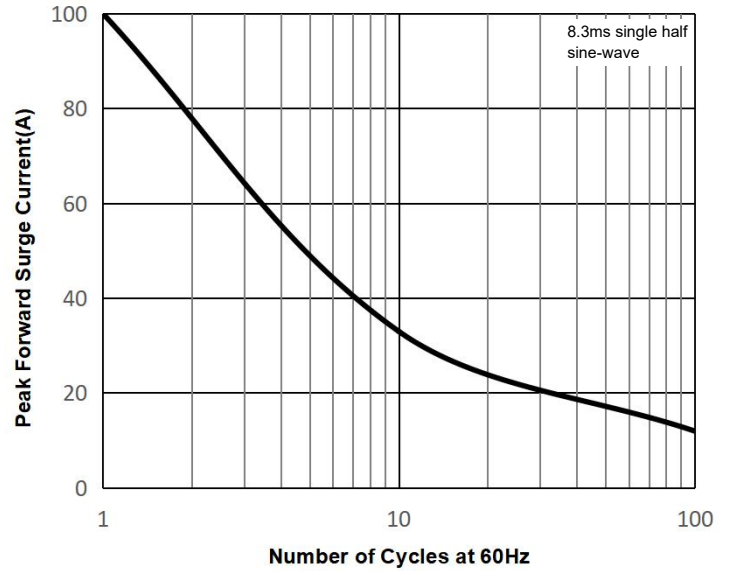
## RATINGS AND CHARACTERISTIC CURVES

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

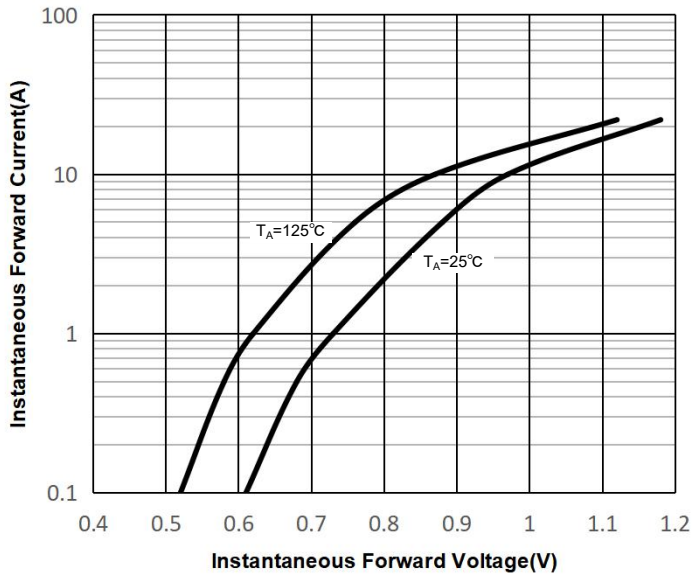
**FIG.1: Forward Output Current Derating Curve**



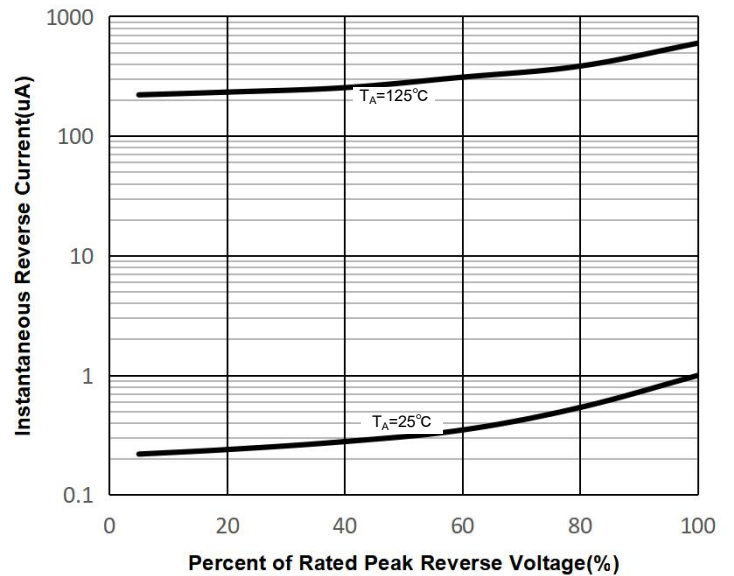
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**



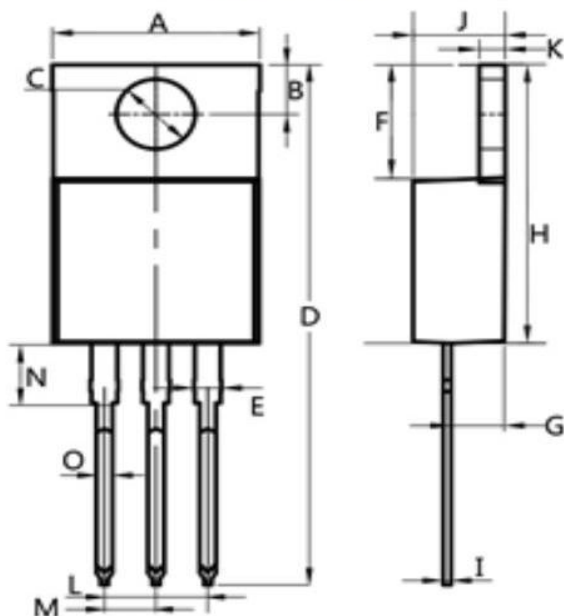
**FIG.4: Typical Reverse Characteristics**



## 10A, 300V Low Forward Voltage Schottky Rectifiers

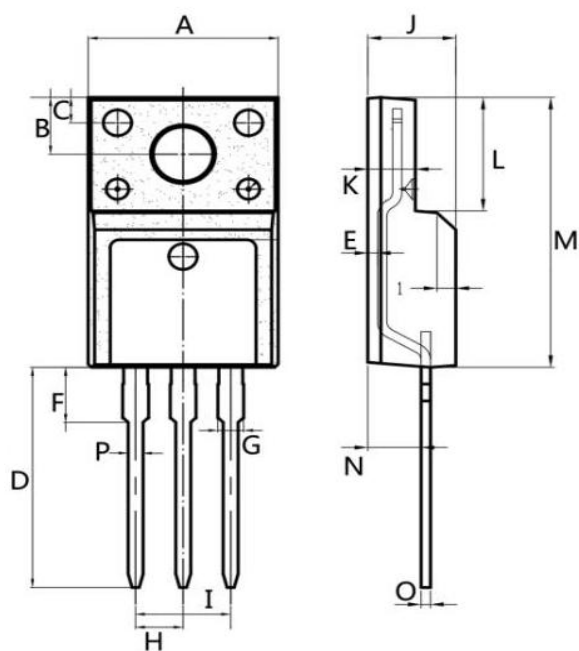
### PACKAGE OUTLINE DIMENSIONS

**TO-220AB**



Dim.	Min.	Max.
A	10.0	10.4
B	2.5	3.0
C	3.5	4.0
D	28.0	30.0
E	1.1	1.5
F	6.2	6.6
G	2.9	3.3
H	15.0	16.0
I	0.35	0.45
J	4.3	4.7
K	1.2	1.4
L	Typ 5.08	
M	Typ 2.54	
N	3.1	3.5
O	0.7	0.9
All Dimensions in millimeter		

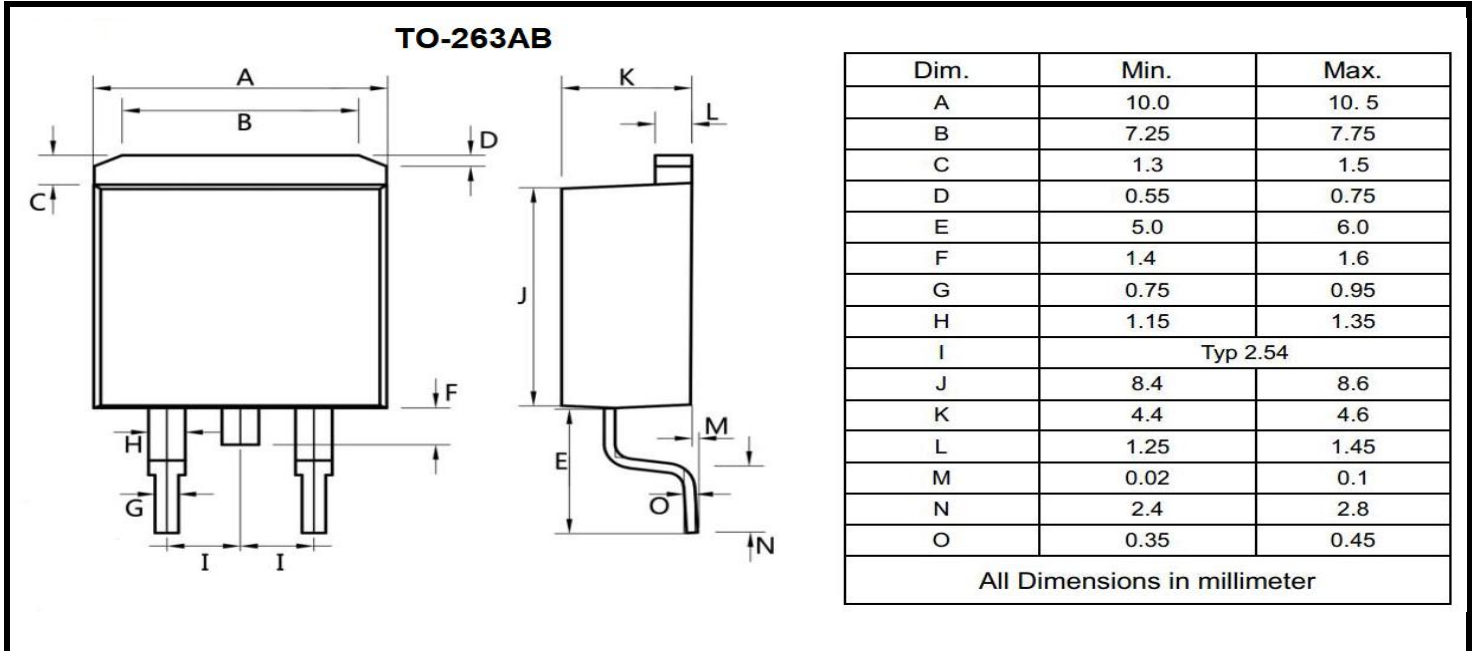
**ITO-220AB**



Dim.	Min.	Max.
A	9.9	10.3
B	2.9	3.5
C	1.15	1.45
D	12.75	13.25
E	0.55	0.75
F	3.1	3.5
G	1.25	1.45
H	Typ 2.54	
I	Typ 5.08	
J	4.55	4.75
K	2.4	2.7
L	6.35	6.75
M	15.0	16.0
N	2.75	3.15
O	0.45	0.60
P	0.7	0.9
All Dimensions in millimeter		

**10A, 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