

15A, 300V Low Forward Voltage Schottky Rectifiers

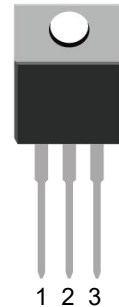
FEATURES

- 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

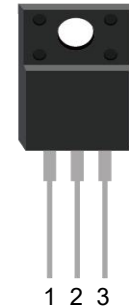
RoHS
COMPLIANT

HALOGEN
FREE
AVAILABLE

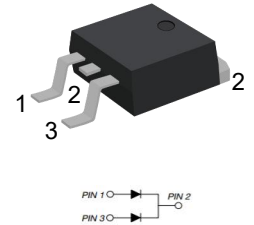
TO-220AB



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
SP15300CT	TO-220AB
SP15300FCT	ITO-220AB
SP15300TA	TO-263AB

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°C unless otherwise noted

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	300	V
Average Forward Rectified Current	I _{F(AV)}	15	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I _{FSM}	120	A
Operating Junction Temperature Range	T _J	-55 to +150	°C
Storage Temperature Range	T _{STG}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS

T_A=25°C unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ I _F =7.5A Per Leg	T _A =25°C	V _F	0.89	0.98	V
	T _A =125°C		0.76	0.83	
Reverse Current @ V _{RRM}	T _A =25°C	I _R	1	10	uA
	T _A =125°C		0.6	5	mA
Typical Thermal Resistance		R _{θJC}			°C/W
TO-220AB	2				
ITO-220AB	4				
TO-263AB	15				

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

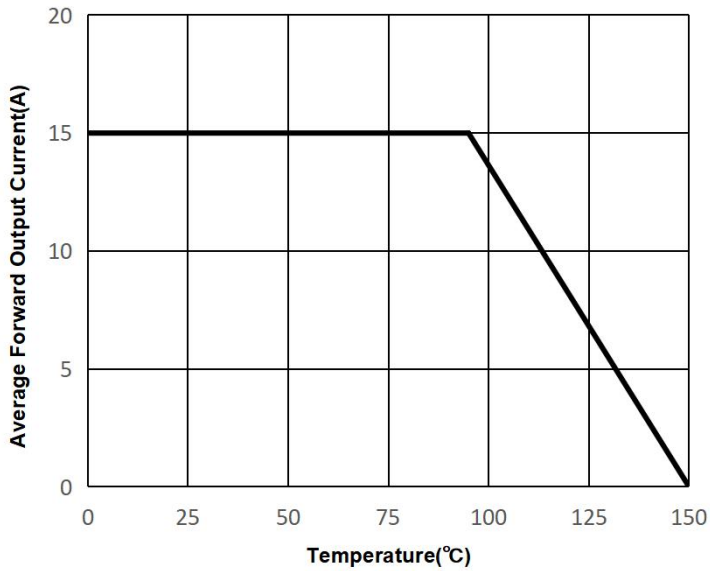


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

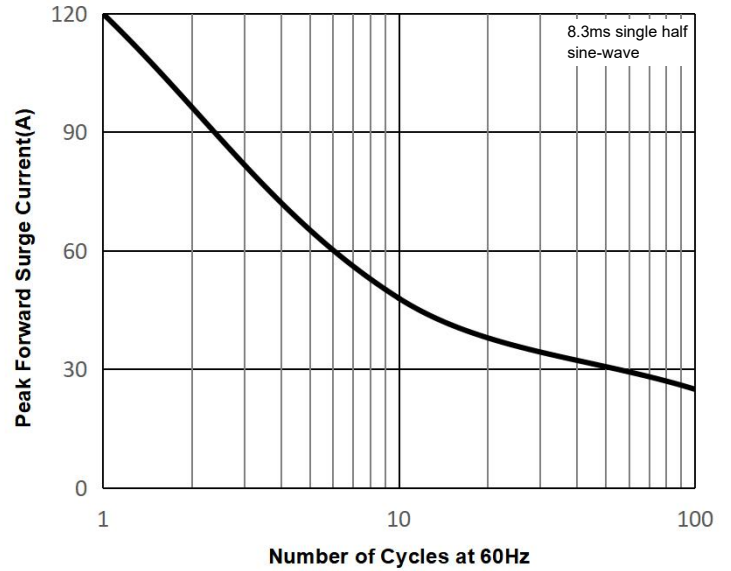


FIG.3: Typical Forward Characteristics

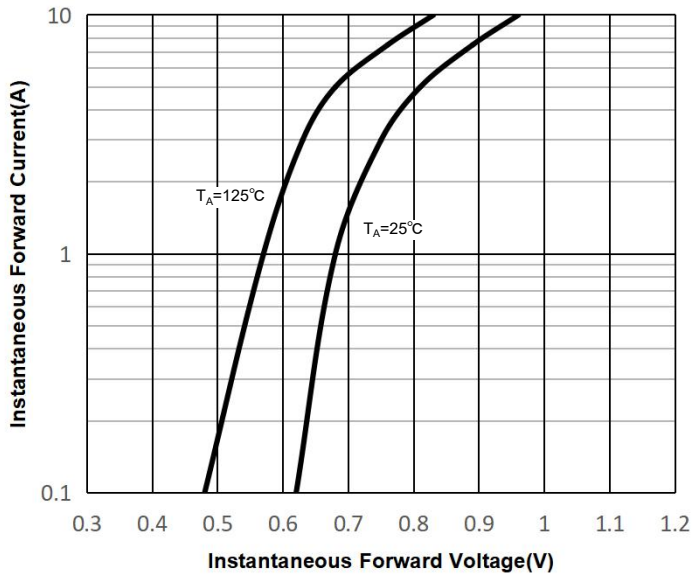
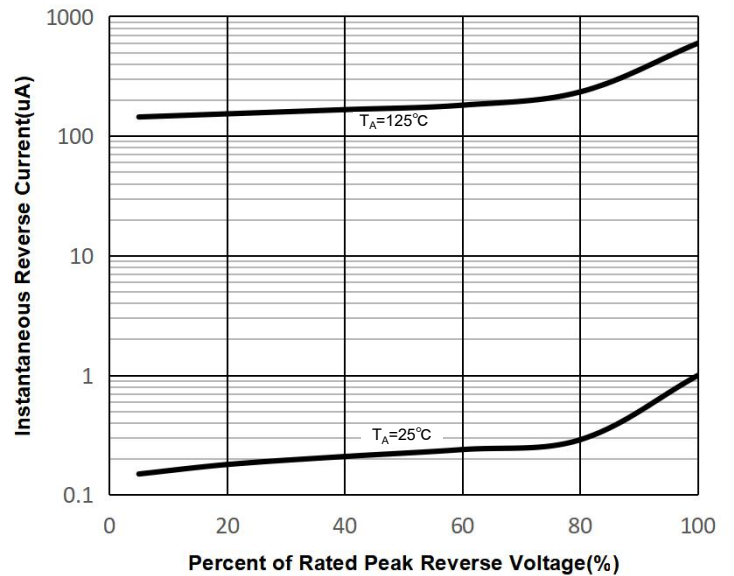


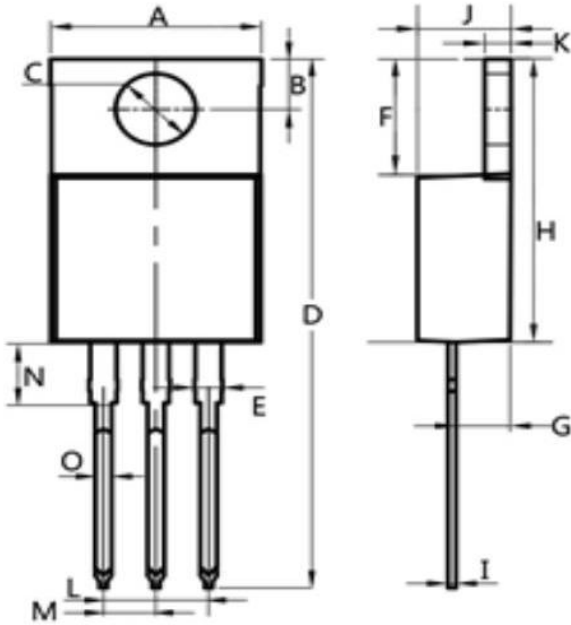
FIG.4: Typical Reverse Characteristics



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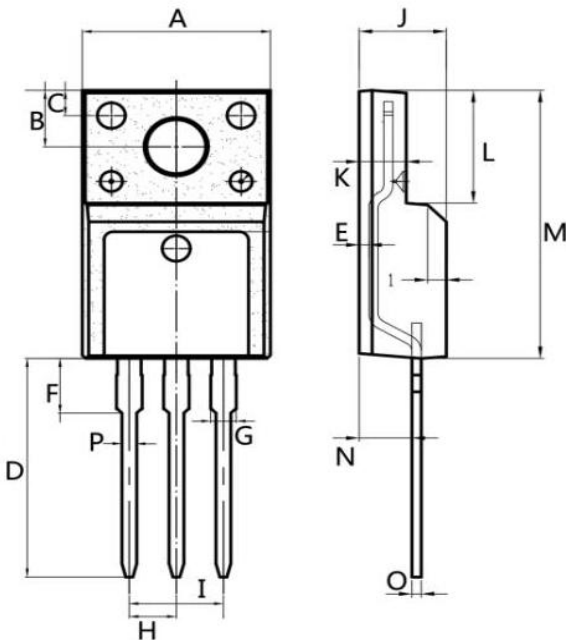
PACKAGE OUTLINE DIMENSIONS

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		

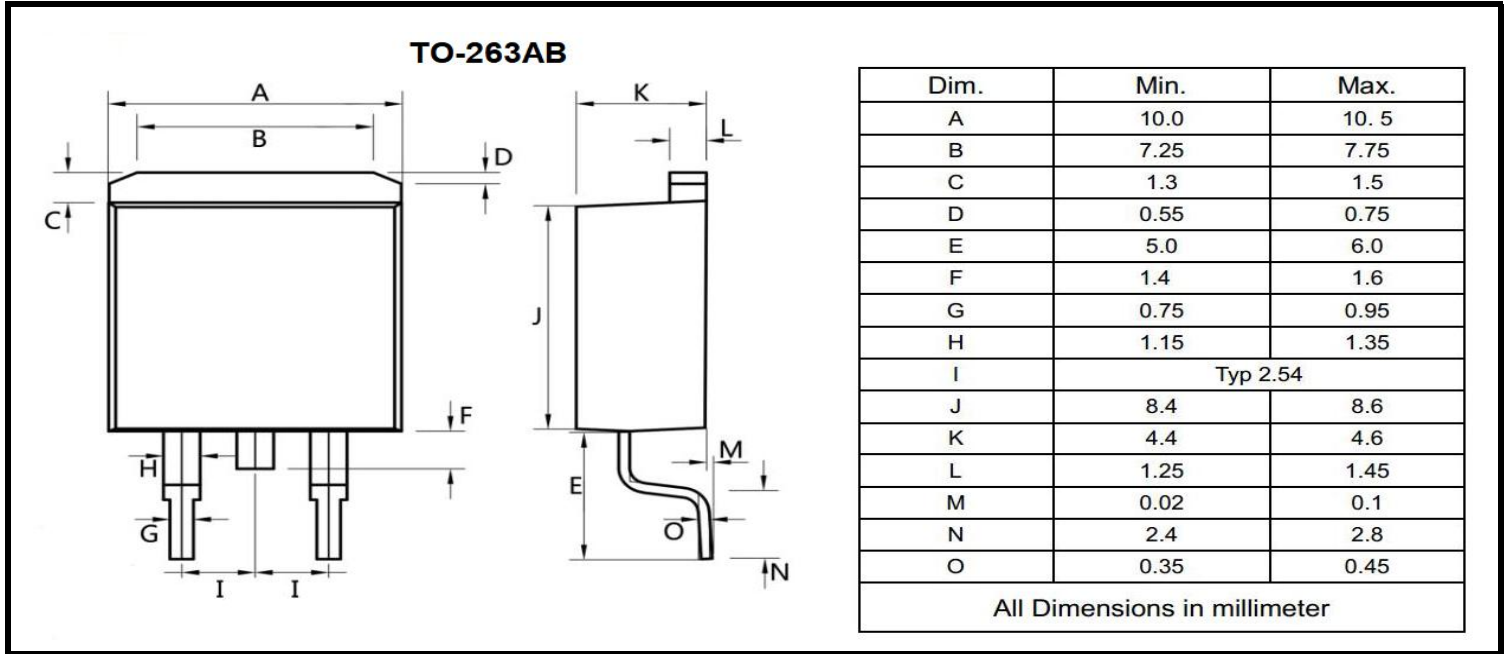
ITO-220AB



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		

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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