

## 30A, 80V Low Forward Voltage Schottky Rectifiers

### FEATURES

- Trench MOS schottky barrier 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

### 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

### 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

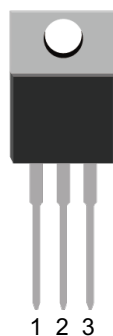
Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	80	V
Average Forward Rectified Current	$I_{F(AV)}$	30	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	$I_{FSM}$	250	A
Operating Junction Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +150	°C

### ELECTRICAL CHARACTERISTICS

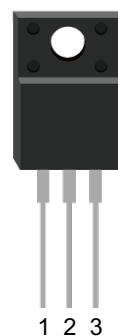
$T_A=25^{\circ}\text{C}$  unless otherwise noted

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=5\text{A}$	$T_A=25^{\circ}\text{C}$	$V_F$	0.46	0.5	V
	$T_A=125^{\circ}\text{C}$		0.41	0.45	
Forward Voltage@ $I_F=15\text{A}$	$T_A=25^{\circ}\text{C}$		0.6	0.63	
	$T_A=125^{\circ}\text{C}$		0.54	0.57	
Reverse Current @ $V_{RRM}$	$T_A=25^{\circ}\text{C}$	$I_R$	35	100	µA
	$T_A=125^{\circ}\text{C}$		20	70	mA
Typical Thermal Resistance TO-220AB, TO-263AB ITO-220AB		$R_{\theta JC}$	2 4		°C/W

TO-220AB



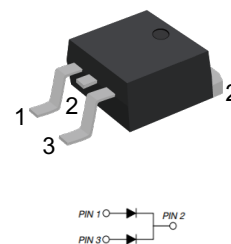
ITO-220AB



RoHS  
COMPLIANT

HALOGEN  
FREE  
AVAILABLE

TO-263AB



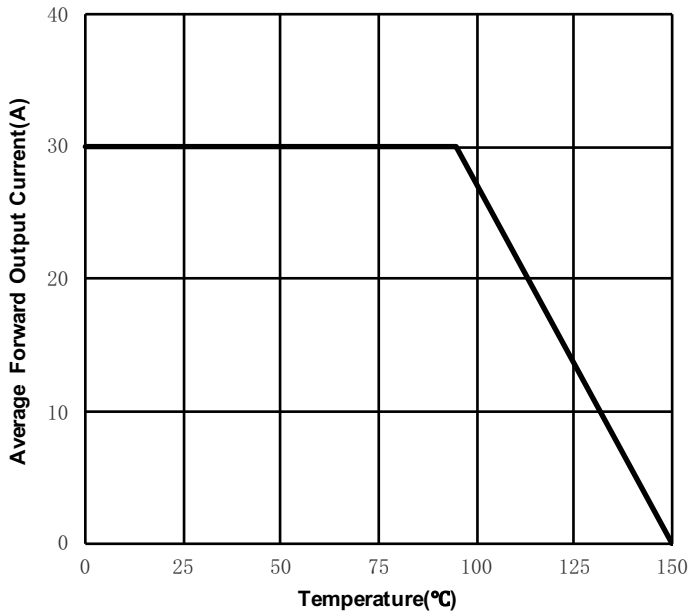
P/N	Package
ST3080CT	TO-220AB
ST3080FCT	ITO-220AB
ST3080TA	TO-263AB

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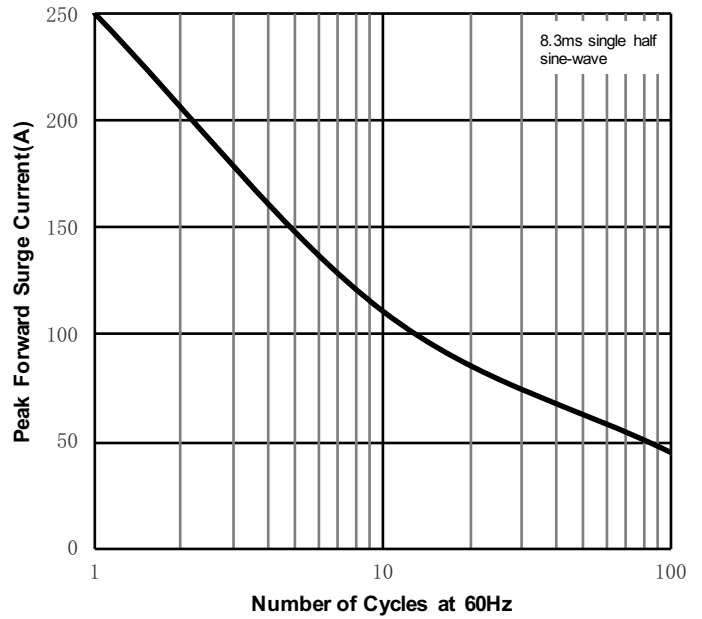
## RATINGS AND CHARACTERISTIC CURVES

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

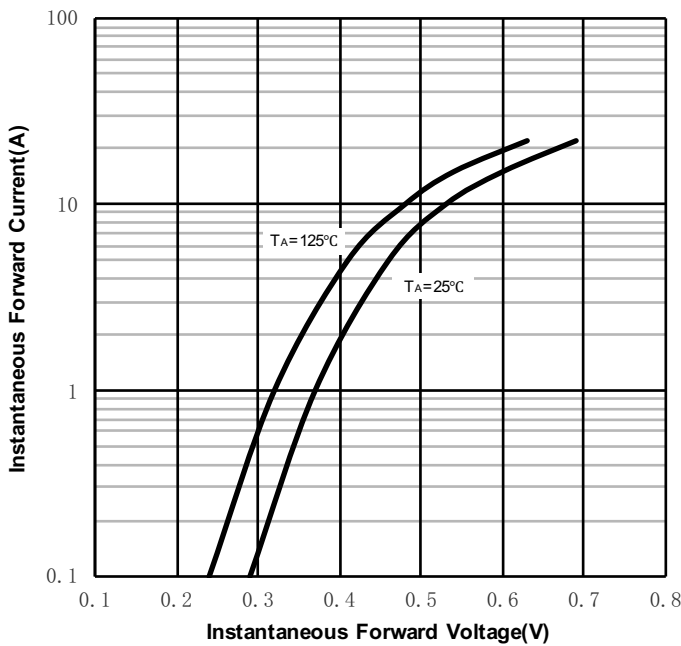
**FIG.1: Forward Output Current Derating Curve**



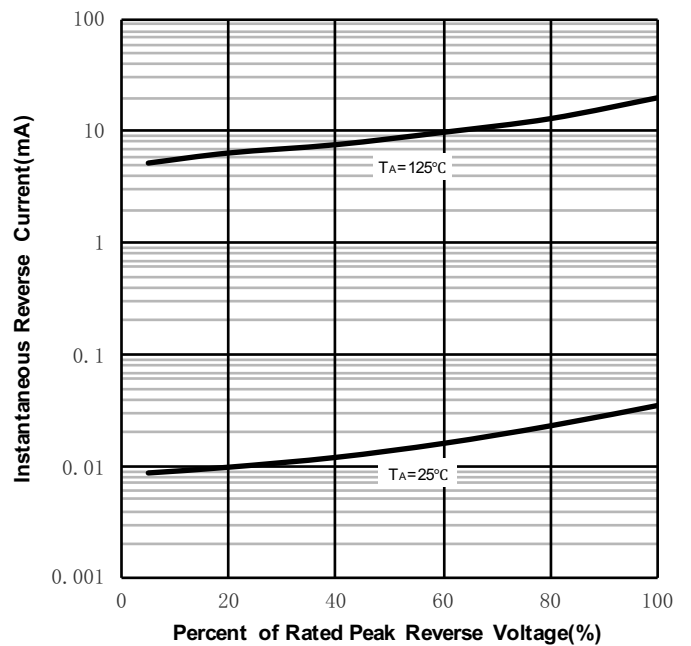
**FIG.2: Maximum Non-Repetitive Peak Forward Surge Current**



**FIG.3: Typical Forward Characteristics**



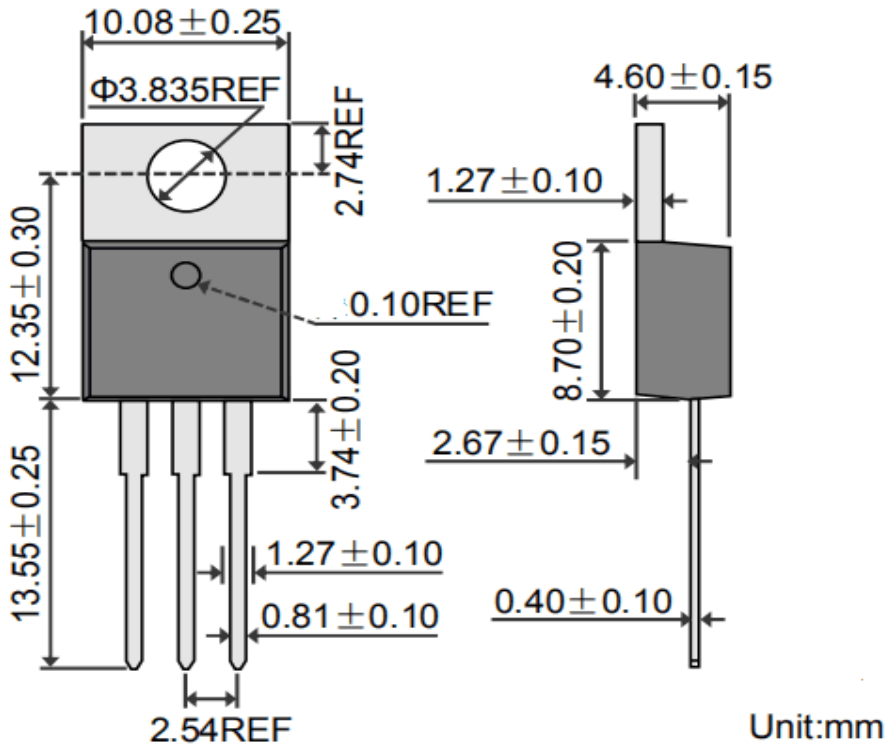
**FIG.4: Typical Reverse Characteristics**



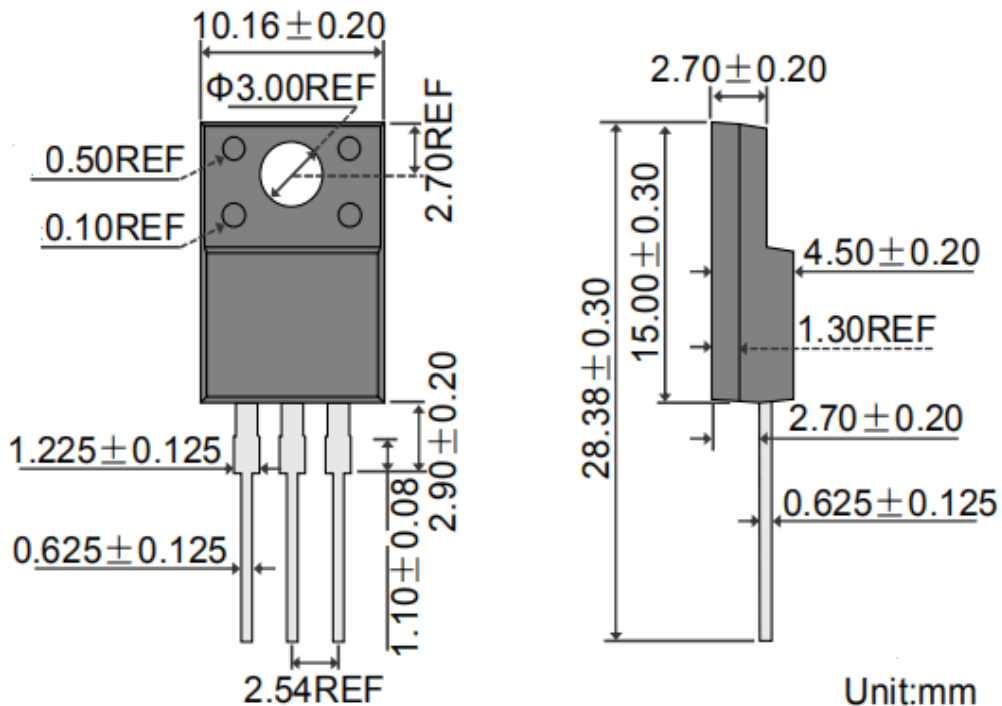
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### PACKAGE OUTLINE DIMENSIONS

#### TO-220AB

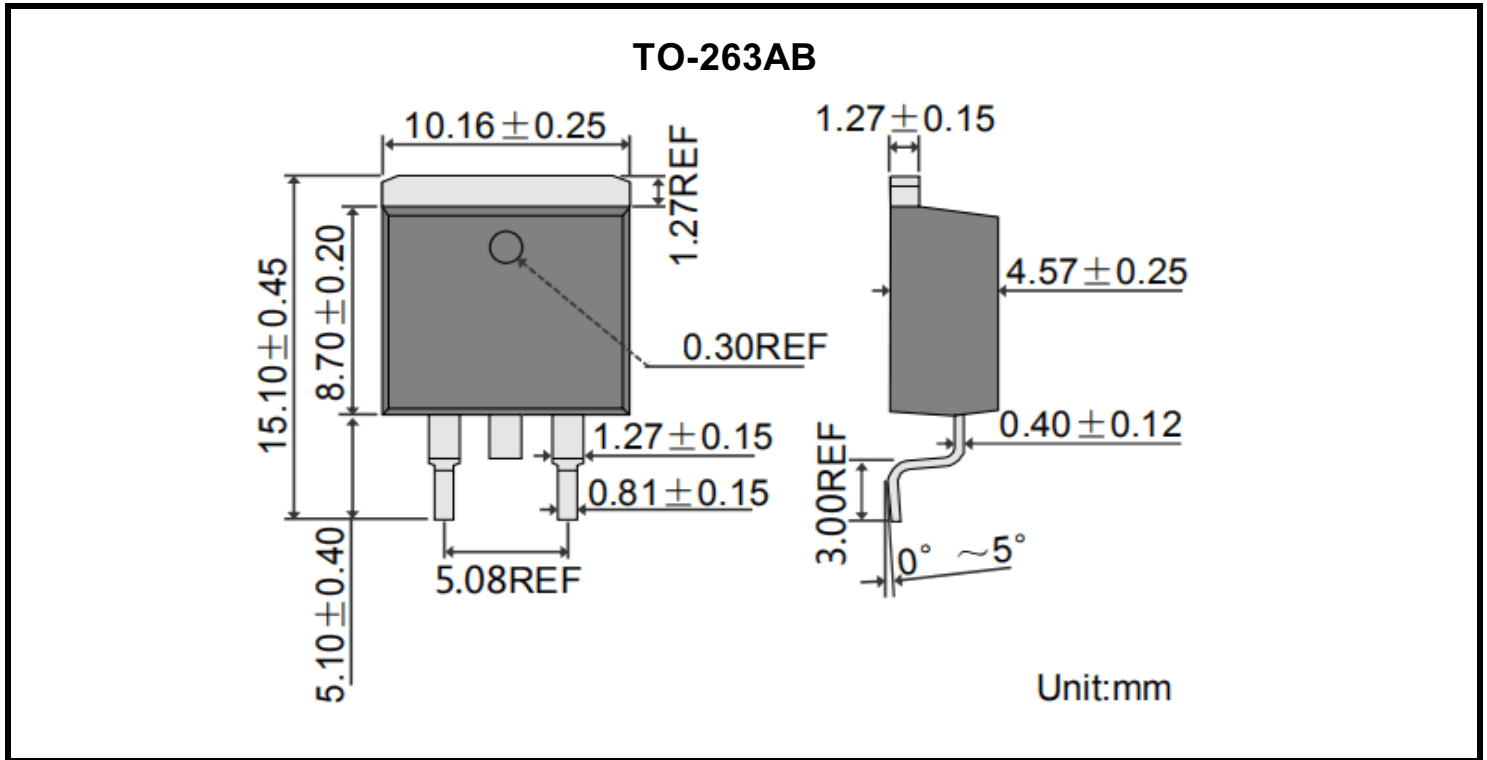


#### ITO-220AB



**30A, 80V 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