

40A, 250V Standard Schottky Rectifiers

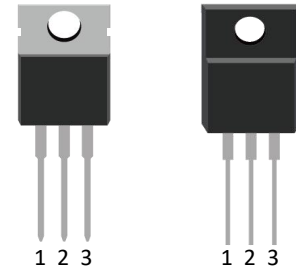
FEATURES

- Low leakage current
- Low forward voltage drop
- Low power losses, high efficiency
- High temperature soldering guaranteed: 270°C/10 seconds
- RoHS compliant

MECHANICAL DATA

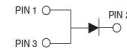
- Case: TO-220AB, ITO-220AB
- Case material: molding compound meets UL 94V-0 flammability rating
- Polarity: as marked on case body

TO-220AB ITO-220AB



RoHS
COMPLIANT

HALOGEN
FREE
AVAILABLE



P/N	Package
MBR40250CT	TO-220AB
MBR40250FCT	ITO-220AB

TYPICAL APPLICATION

General purpose use in AC to DC 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}	250	V
Maximum RMS Voltage	V_{RMS}	175	
Maximum DC Blocking Voltage	V_{DC}	250	
Average Forward Rectified Current	$I_{F(AV)}$	40	A
Peak Forward Surge Current (8.3 ms single half sine-wave superimposed on rated load)	I_{FSM}	180	A
Operating Junction Temperature Range	T_J	-55 to +150	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS

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

Parameter	Test Conditions	Symbol	Value		Unit
			Typ.	Max.	
Forward Voltage@ $I_F=20\text{A}$	$T_J=25^\circ\text{C}$	V_F	0.83	-	V
	$T_J=125^\circ\text{C}$		0.71	-	
Forward Voltage@ $I_F=40\text{A}$	$T_J=25^\circ\text{C}$		0.91	-	
	$T_J=125^\circ\text{C}$		0.8	-	
Reverse Current @ V_{RRM}	$T_J=25^\circ\text{C}$	I_R	1	10	μA
	$T_J=125^\circ\text{C}$		2	5	mA
Typical Thermal Resistance		$R_{\theta JC}$			$^\circ\text{C/W}$
			TO-220AB	2	
ITO-220AB			4		

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RATINGS AND CHARACTERISTIC CURVES

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

FIG.1: Forward Output Current Derating Curve

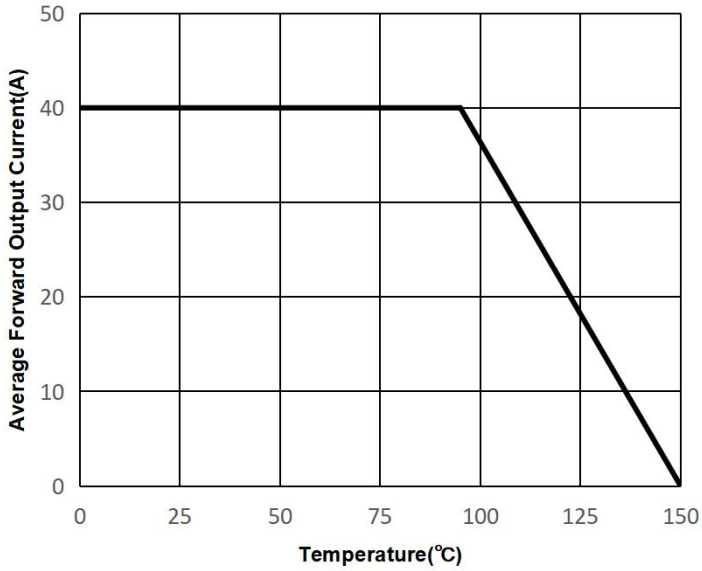


FIG.2: Maximum Non-Repetitive Peak Forward Surge Current

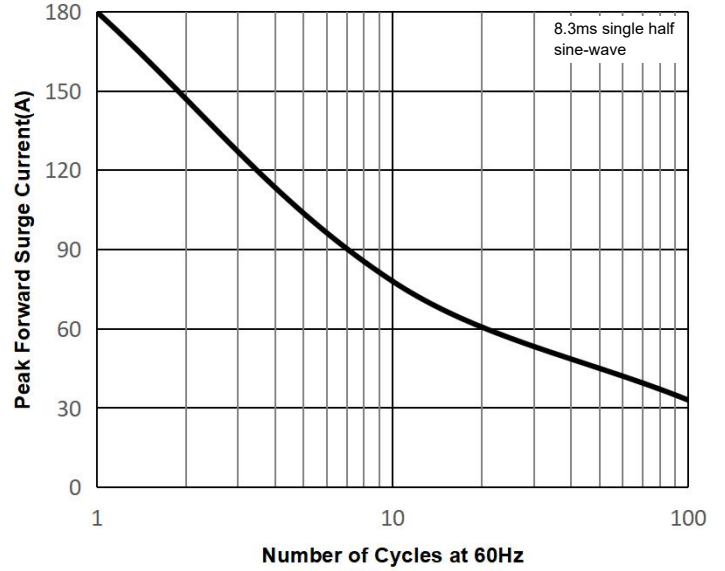


FIG.3: Typical Forward Characteristics

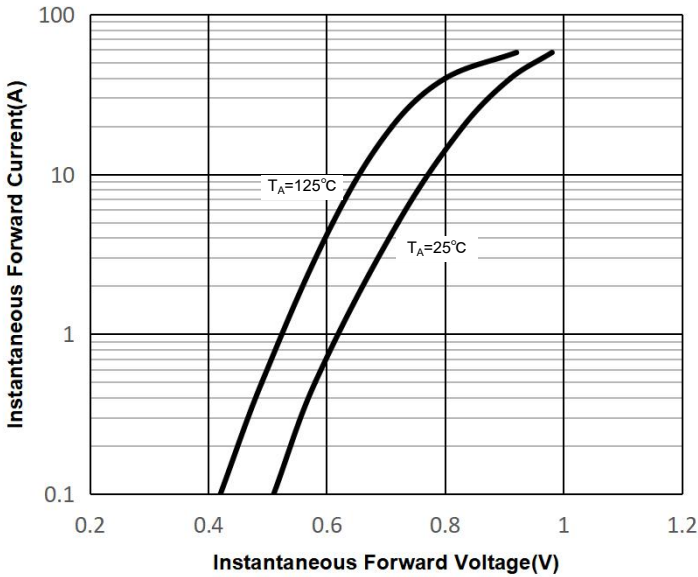
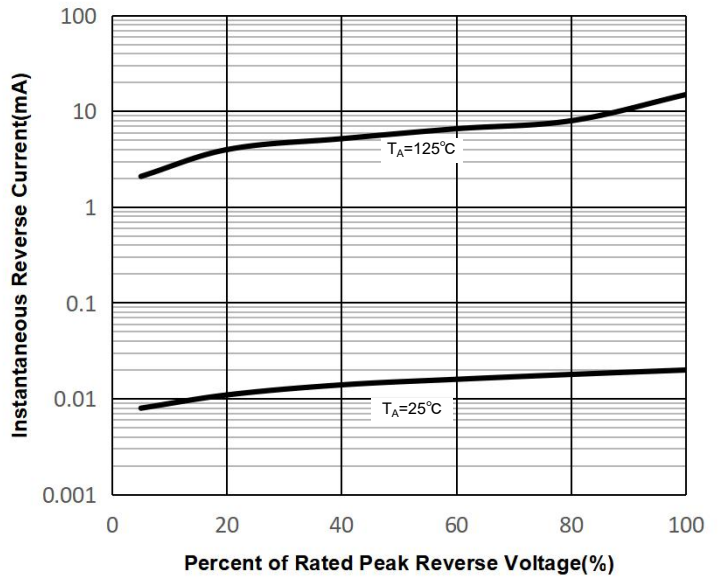


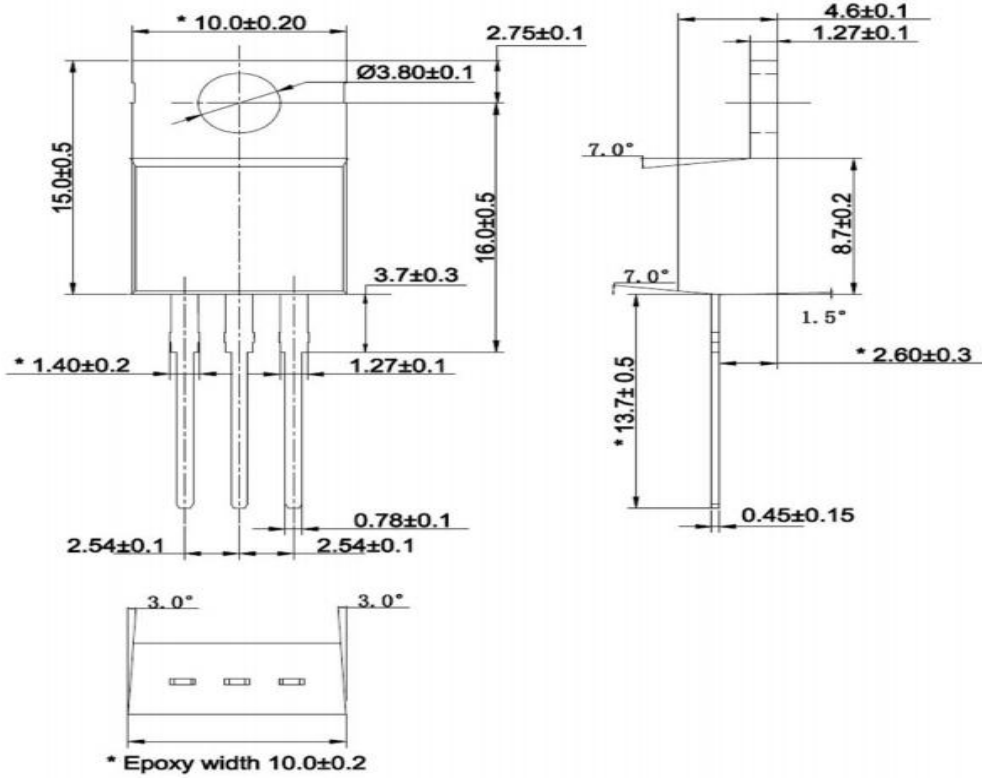
FIG.4: Typical Reverse Characteristics



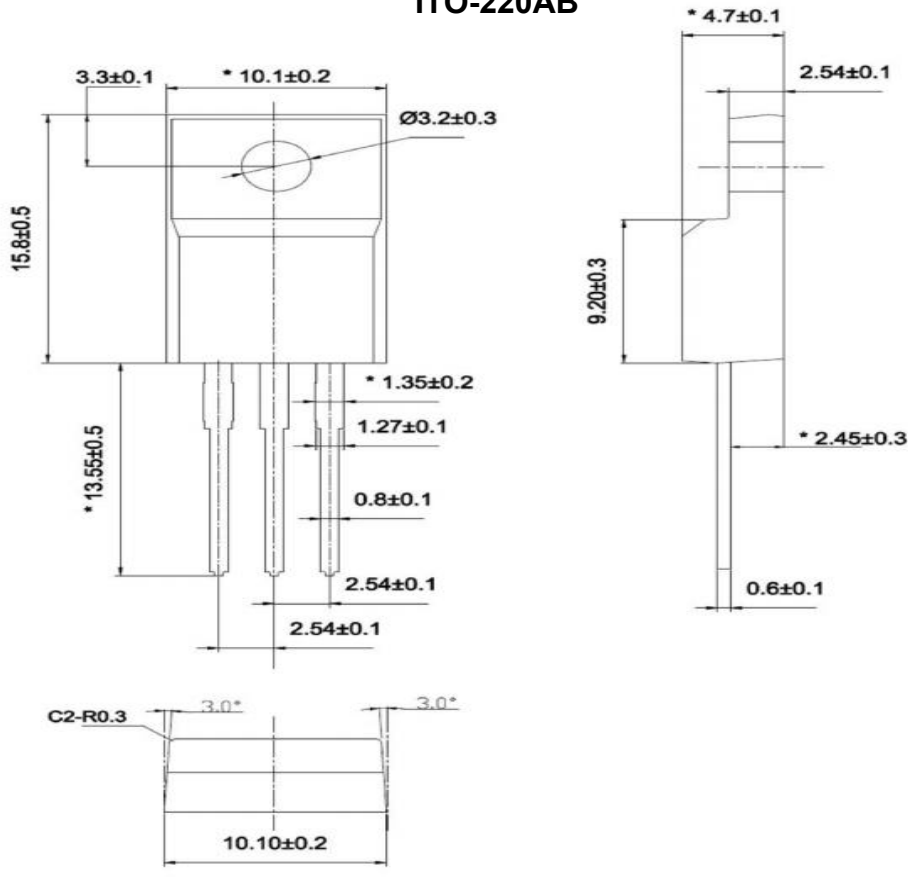
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PACKAGE OUTLINE DIMENSIONS

TO-220AB



ITO-220AB



40A, 250V Standard Schottky Rectifiers**PACKING INFORMATION**

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