

## DO-27 Plastic-Encapsulate Diodes

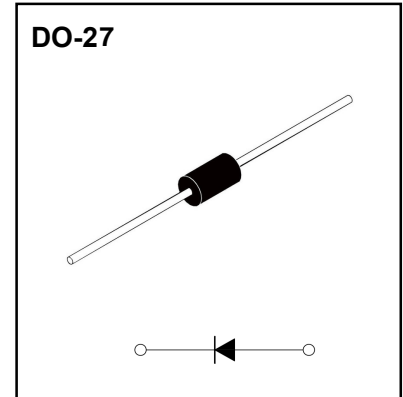
### Schottky Rectifier

#### Features

- $I_O$  5.0A
- $V_{RRM}$  100V
- High surge current capability
- Polarity: Color band denotes cathode
- Low  $V_f$

#### Applications

- Rectifier



#### Limiting Values (Absolute Maximum Rating)

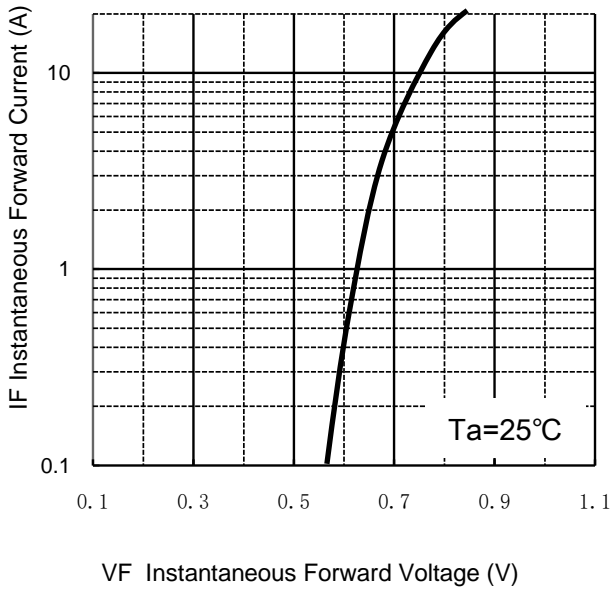
Item	Symbol	Unit	Conditions	SBL5100
Repetitive Peak Reverse Voltage	$V_{RRM}$	V		100
Maximum RMS Voltage	$V_{RMS}$	V		70
Maximum DC Blocking Voltage	$V_{DC}$	V		100
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_L=75^\circ\text{C}$	5.0
Surge(Non-repetitive)Forward Current	$I_{FSM}$	A	60Hz Half-sine wave,1 cycle, $T_a=25^\circ\text{C}$	150
Junction Temperature	$T_J$	$^\circ\text{C}$		-55~+150
Storage Temperature	$T_{STG}$	$^\circ\text{C}$		-55~+150

#### Electrical Characteristics ( $T_a=25^\circ\text{C}$ Unless otherwise specified)

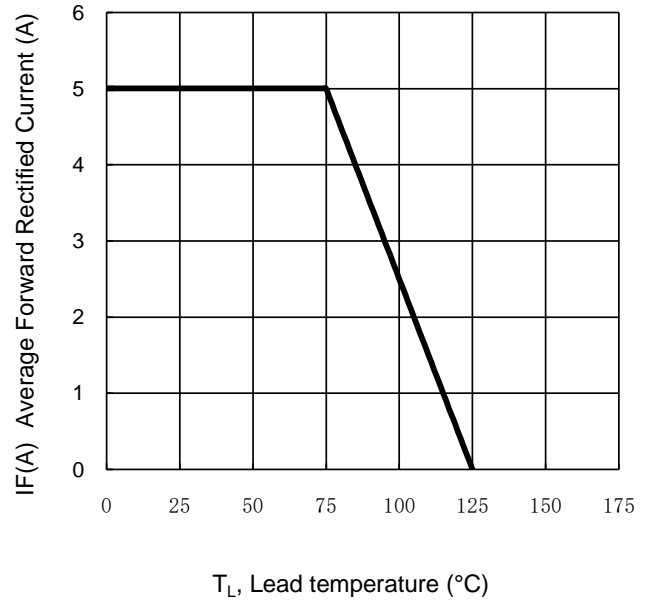
Item	Symbol	Unit	Test Condition		SBL5100
Peak Forward Voltage	$V_F$	V	$I_F=5A$	$T_J=25^\circ\text{C}$	0.75
Peak Reverse Current	$I_{RRM1}$	mA	$V_{RM}=V_{RRM}$	$T_J=25^\circ\text{C}$	0.5
	$I_{RRM2}$			$T_J=100^\circ\text{C}$	20
Thermal Resistance(Typical)	$R_{\theta J-A}$	$^\circ\text{C/W}$	Between junction and ambient		54
	$R_{\theta J-C}$		Between junction and case		15

# Typical Characteristics

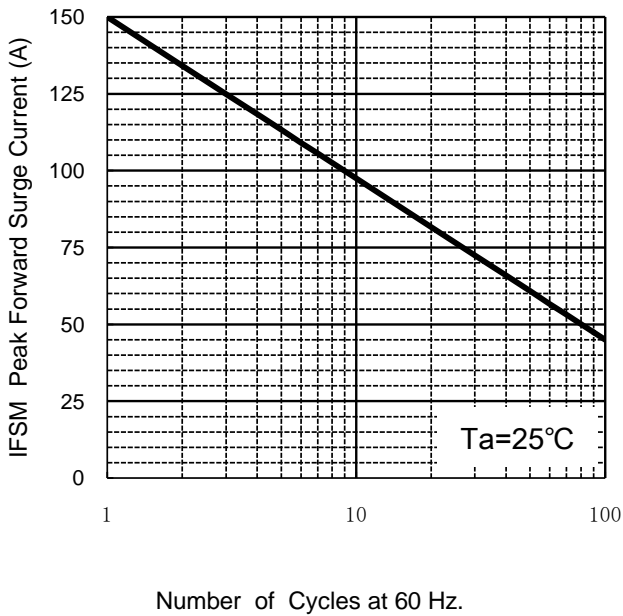
**TYPICAL FORWARD CHARACTERISTIC**



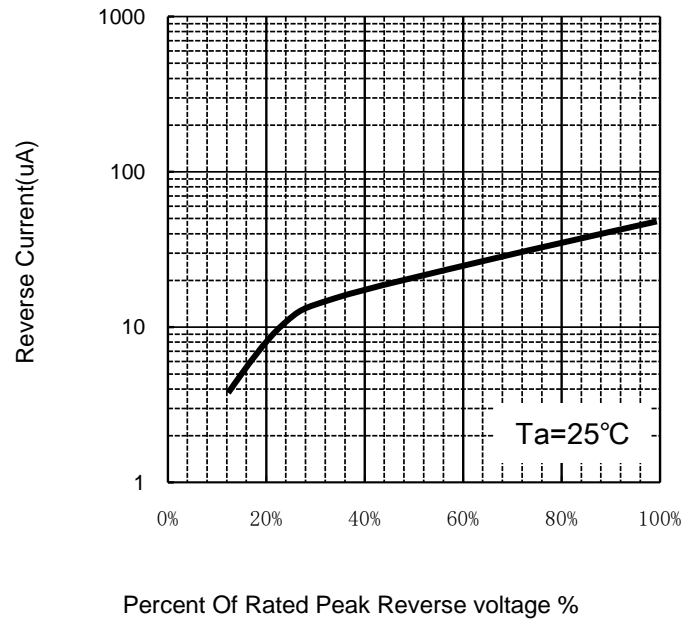
**FORWARD CURRENT DERATING CURVE**



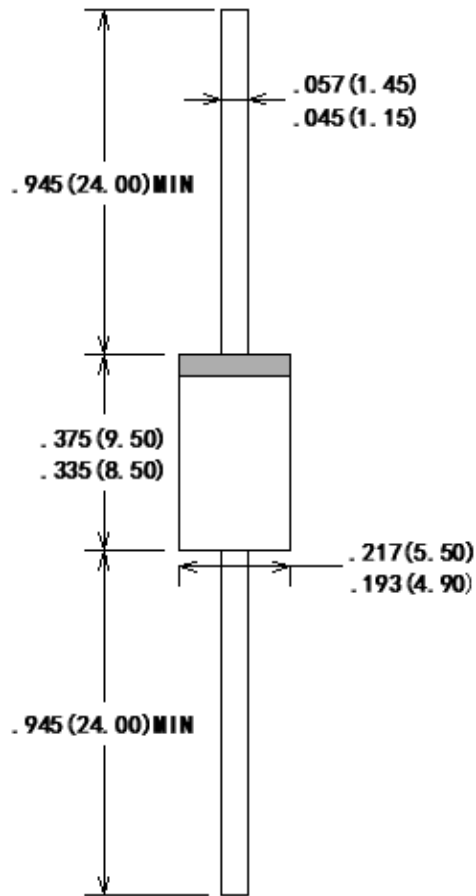
**MAXIMUM NON REPETITIVE PEAK FORWARD SURGE CURRENT**



**Typical Reverse Characteristics**



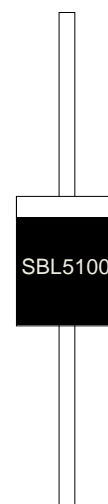
# DO-27 Package Outline Dimensions



## Ordering Information

Part Number	Package	Shipping Quantity
SBL5100	DO-27	1250/Box

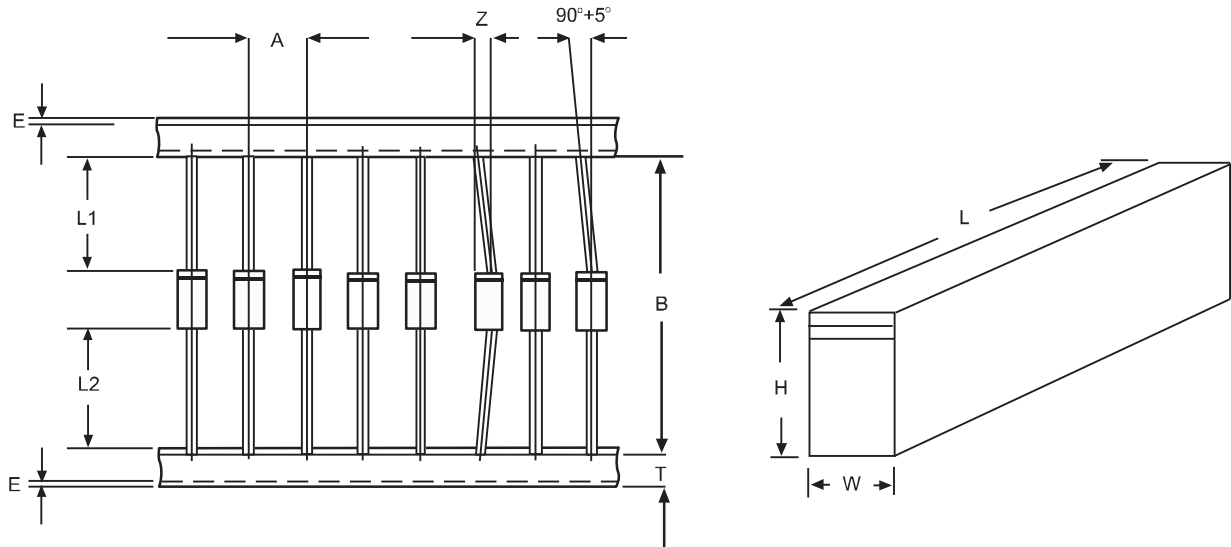
## Marking Diagram



# Ammo Box Packaging Specifications For Axial Lead Rectifiers

Axial lead devices are packed in accordance with EIA standard RS-296-D and specifications given below

COMPONENT OUTLINE	COMPONENT PITCH A	INNER TAPE PITCH B	CUMULATIVE PITCH TOLERANCE
	$\pm 0.5\text{mm}(.020'')$	$+0.5\text{mm}(.020'')$	
R-1	5.0mm	26.0mm	2.0mm/20pitch
R-1	5.0mm	52.4mm	2.0mm/10pitch
A-405	5.0mm	26.0mm	2.0mm/20pitch
A-405	5.0mm	52.4mm	2.0mm/10pitch
DO-34/DO-35	5.0mm	26.0mm	2.0mm/20pitch
DO-34/DO-35	5.0mm	52.4mm	2.0mm/10pitch
DO-41	5.0mm	26.0mm	2.0mm/20pitch
DO-41	5.0mm	52.4mm	2.0mm/10pitch
DO-15	5.0mm	52.4mm	2.0mm/10pitch
DO-27	10.0mm	52.4mm	2.0mm/10pitch
R-6	10.0mm	52.4mm	2.0mm/10pitch



ITEM	SYMBOL	SPECIFICATIONS(mm)	SPECIFICATIONS(inch)
Component alignment	Z	1.2max	0.048max
Tape width	T	$6.0\pm 0.4$	$0.236\pm 0.016$
Exposed adhesive	E	0.8max	0.032max
Body eccentricity	$ L1-L2 $	1.0max	0.040max
Box length	L	$255.0\pm 5.0$	$10.04\pm 0.197$
Box width	W	$78.0\pm 5.0$	$3.07\pm 0.197$
Box height	H	$150.0\pm 5.0$	$5.91\pm 0.197$

NOTE: Each component lead shall be sandwiched between tapes for A minimum of 3.2mm(0.126'')