

### Axial Lead General Purpose Plastic Rectifier

**(Pb)** Lead(Pb)-Free

#### Features:

- \* Low forward voltage drop.
- \* High current capability.
- \* High reliability.
- \* High surge current capability.
- \* Epitaxial construction.

**GENERAL PURPOSE  
RECTIFIERS  
1.0 AMPERES  
20-100 VOLTS**



**DO-41**

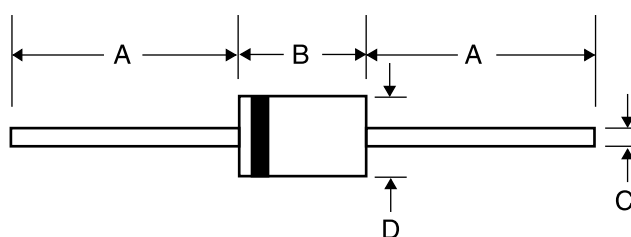
#### Mechanical Data:

- \* Case: Molded plastic.
- \* Epoxy: UL 94V-0 rate flame retardant.
- \* Lead: Axial leads, solderable per MIL-STD-202, method 208 guranteed.
- \* Polarity: Color band denotes cathode end.
- \* Mounting position: Any.
- \* Weight: 0.34 grams.

### DO-41 Outline Dimensions

Unit:mm

#### Axial Device (Through-Hole)



Dim	A		B		C		D	
	Min	Max	Min	Max	Min	Max	Min	Max
DO-41	25.40	-	4.06	5.20	0.70	0.90	2.00	2.70

**Maximum Rating**

Characteristic	Symbol	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	Units
Maximum repetitive peak reverse voltage	$V_{RRM}$	20	30	40	50	60	80	100	V
Maximum RMS voltage	$V_{RMS}$	14	21	28	35	42	56	70	V
Maximum DC blocking voltage	$V_{DC}$	20	30	50	50	60	80	100	V
Maximum average forward rectified current	$I_{AV}$	1.0							A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load	$I_{FSM}$	30							A
Typical thermal resistance <sup>1</sup>	$R_{\theta JA}$	50							°C/W
Operating junction temperature range	$T_J$	-65 to +125			-65 to +150				°C
storage temperature range	$T_{STG}$	-65 to +150							°C

**Electrical Characteristic**

Characteristic	Symbol	SR120	SR130	SR140	SR150	SR160	SR180	SR1100	Units
Maximum Instantaneous Forward Voltage $I_F=1.0A$	$V_F$	0.55			0.70		0.85		V
Maximum DC Reverse Current Rated DC Blocking Voltage, $T_A=25^\circ C$ Rated DC Blocking Voltage, $T_A=100^\circ C$	$I_R$				1.0 10				mA
Typical Junction Capacitance $V_R=4.0V, f=1.0MHz$	$C_P$				110				pF

Notes 1. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

## Ratings and Characteristics Curves

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

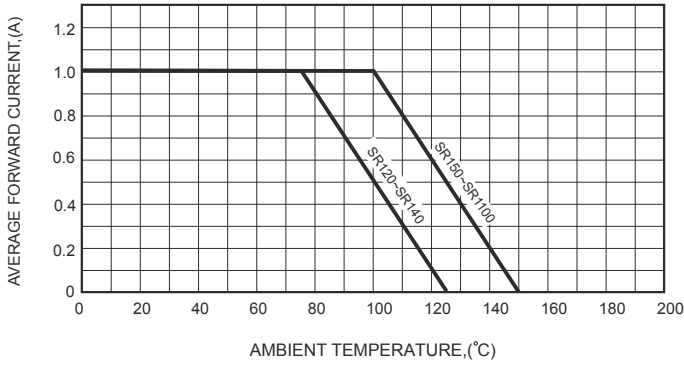


FIG.2-TYPICAL FORWARD CHARACTERISTICS

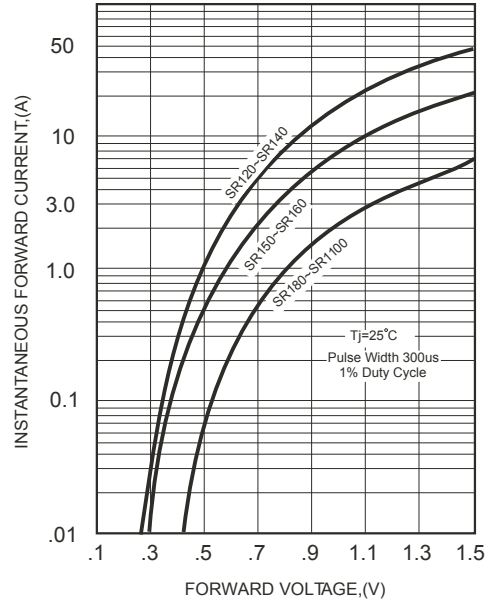


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

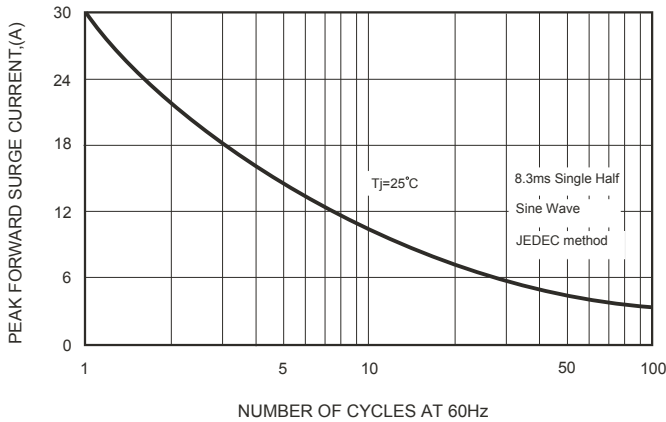


FIG.4-TYPICAL JUNCTION CAPACITANCE

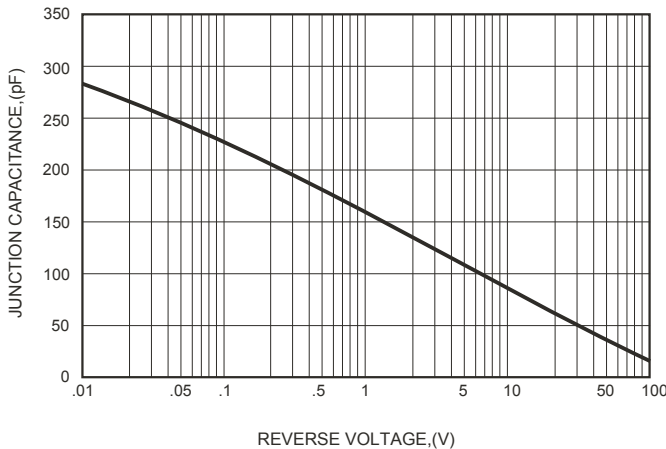


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

