

## SF31 thru SF36

### 1.FEATURES

- \* Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- \* High temperature metallurgically bonded construction
- \* Diffused junction
- \* Capable of meeting environmental standards of MIL-S-19500
- \* For use in high frequency rectifier circuits
- \* Fast switching for high efficiency
- \* High temperature soldering guaranteed: 260°C/10 seconds
- \* 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

### 2.Mechanical Data

**Case:** JEDEC DO-201AD, molded plastic

**Terminals:** Plated axial leads, solderable per MIL-STD-750, Method 2026

**Polarity:** Color band denotes cathode end

**Mounting Position:** Any

**Weight:** 0.04 oz., 1.13 g

**Handling precaution:** None

### 3.Electrical Characteristic

**Maximum Ratings & Thermal Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF31	SF32	SF33	SF34	SF35	SF36	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	150	200	300	400	V
Maximum RMS voltage	$V_{RMS}$	35	70	105	140	210	280	V
Maximum DC blocking voltage	$V_{DC}$	50	100	150	200	300	400	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at $T_A = 55^\circ\text{C}$	$I_{F(AV)}$	3.0						A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	150						A
Typical thermal resistance (Note 2)	$R_{\theta JA}$	20						°C/W
Maximum DC blocking voltage temperature	$T_A$	150						°C
Operating junction temperature range	$T_J$	-50 to +150						°C
Storage temperature range	$T_{STG}$	-50 to +150						°C

**Electrical Characteristics Ratings** at 25°C ambient temperature unless otherwise specified.

Parameter Symbol	symbol	SF31	SF32	SF33	SF34	SF35	SF36	Unit
Maximum instantaneous forward voltage at 3.0A	$V_F$	0.95				1.25		V
Maximum DC reverse current $T_A = 25^\circ\text{C}$ at rated DC blocking voltage $T_A = 100^\circ\text{C}$	$I_R$	10 200						$\mu\text{A}$
Typical reverse recovery time (Note 1)	$t_{rr}$	35						ns
Typical junction capacitance at 4.0V, 1MHz	$C_J$	190						PF

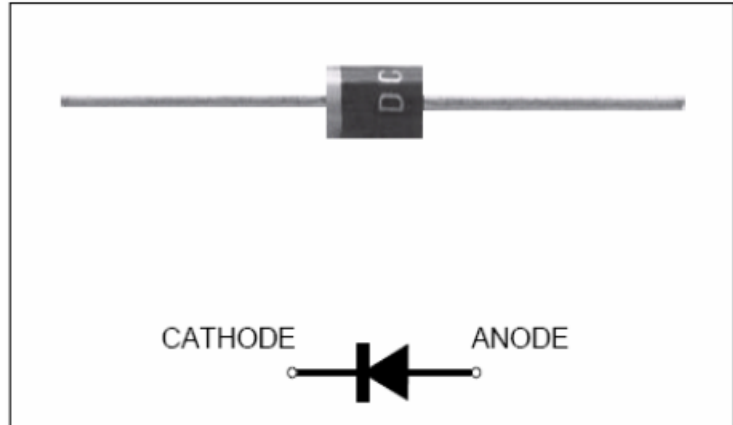
NOTES:

1.  $I_F = 0.5\text{A}$ ,  $I_R = 1.0\text{A}$ ,  $I_{RR} = 0.25\text{A}$
2. Thermal resistance from junction to ambient at 0.375" (9.5mm) lead length, P.C.B. mounted

### Super Fast Plastic Rectifiers

Reverse Voltage 50 to 400V

Forward Current 3.0A



We declare that the material of product compliance with RoHS requirements.

### 4. Ratings and Characteristic Curves (TA = 25°C unless otherwise noted)

Fig. 1 - Forward Current Derating Curve

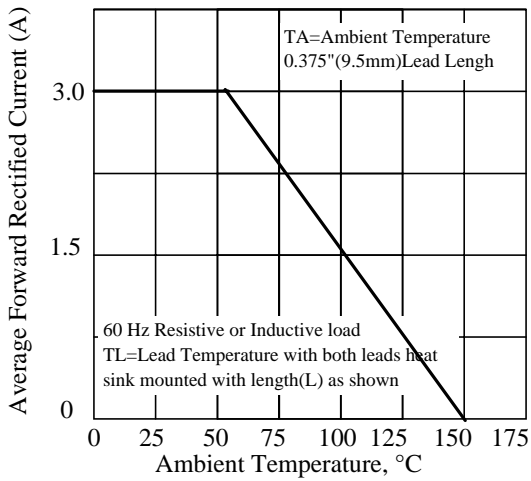


Fig. 2 - Maximum Non-repetitive Peak Forward Surge Current

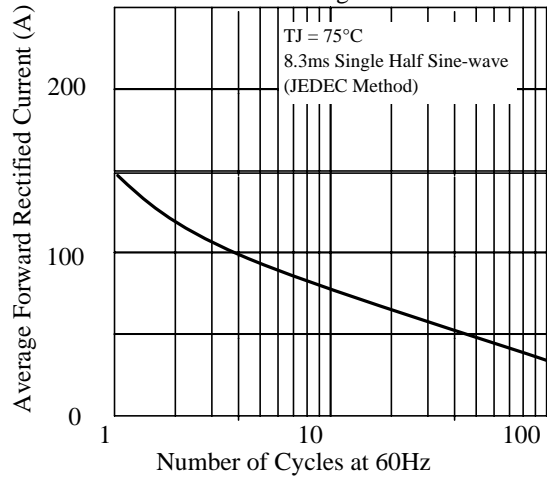


Fig. 3 - Typical Instantaneous Forward Characteristics

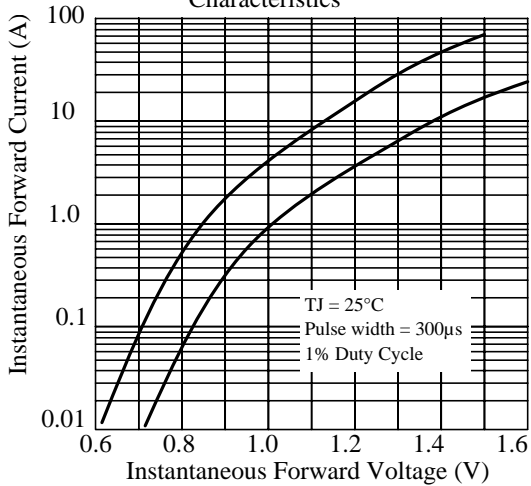


Fig. 4 - Typical Reverse Characteristics

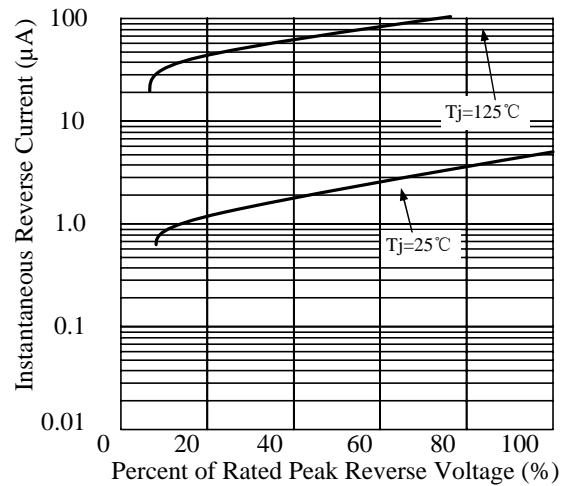


Fig. 5 - typical transient thermal impedance

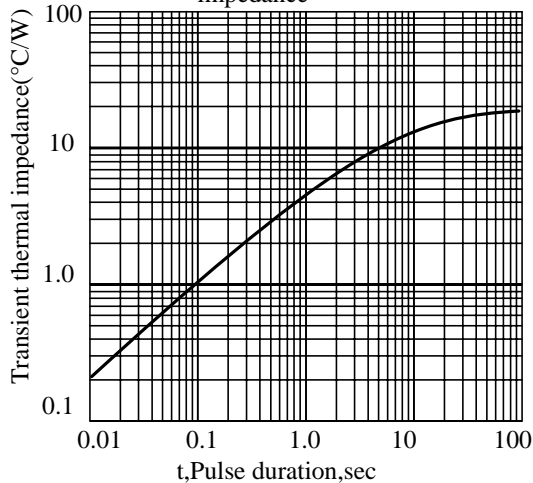
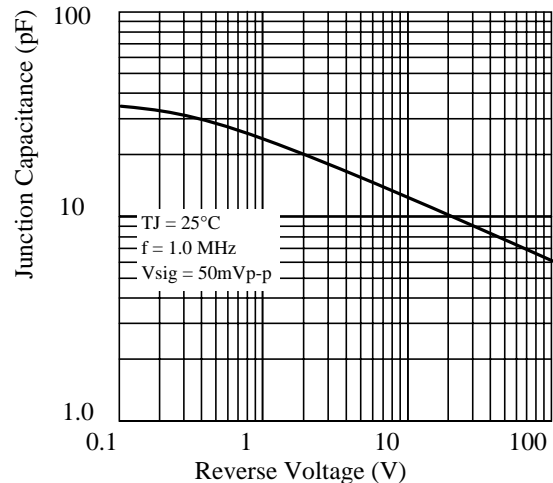
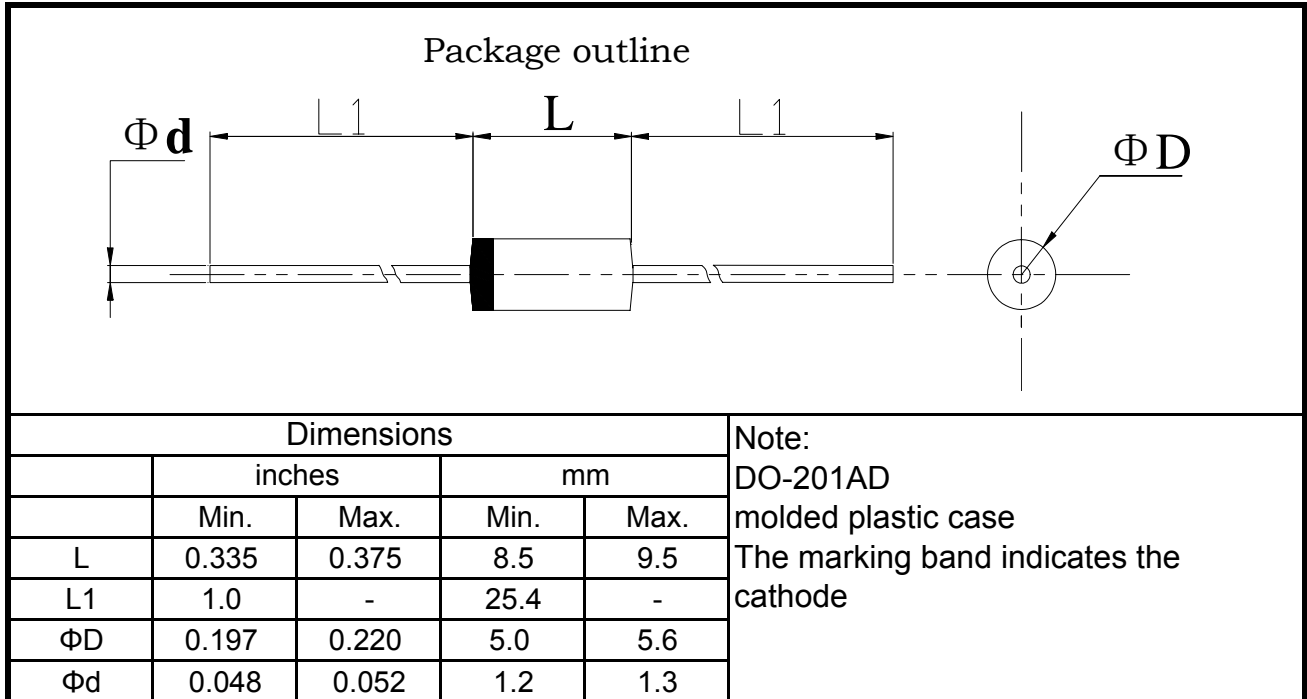


Fig. 6 - Typical Junction Capacitance

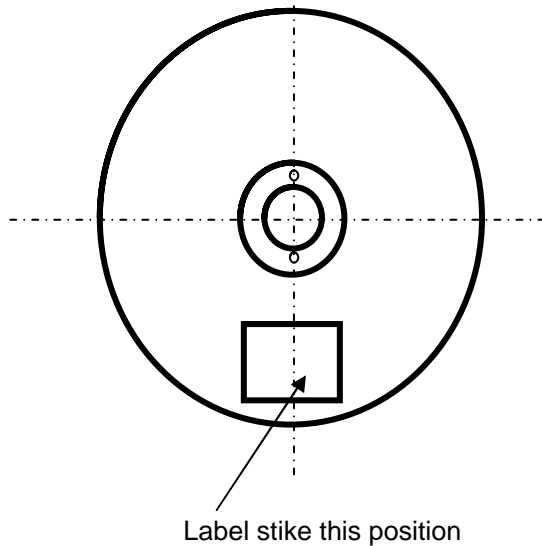


**5.Package Dimensions in inches and (millimeters)**


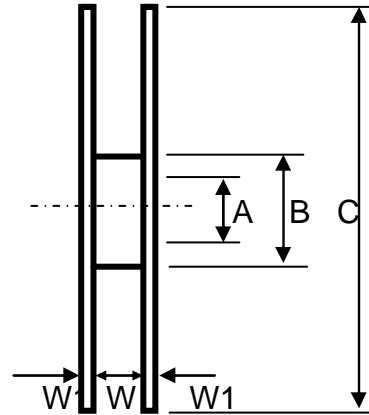
## Packing Of Plastic-Sealed Axial Lead Diodes

### 1. 卷盘/Reel Packing (52mm)

A: 卷盘规格/Reel spec.

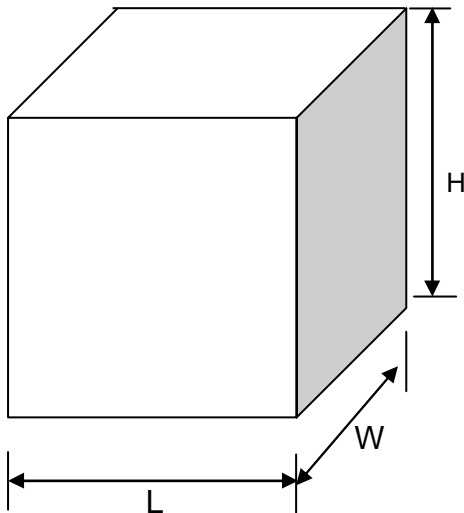


Unit:mm



Item	Symbol	Dimension
Dimeter	A	76.4±0.1
	B	82.5±0.2
	C	330±0.5
Width	W	72±0.2
Thickness	W1	3±0.2

B: 外箱规格/Outer Box Specification



Item	Symbol	Dimension
Size	L	350±2
	W	350±2
	H	340±4

按以上包装方式: (As per the above spec)

	外型/Outside		
	DO-41 & A-405	DO-15	DO-201AD
Q'ty/Taping	5K	4K	1.4K
Q'ty/Packing Case	20K	16K	5.6K

**2. 弹带盒装/Ammo Packing**

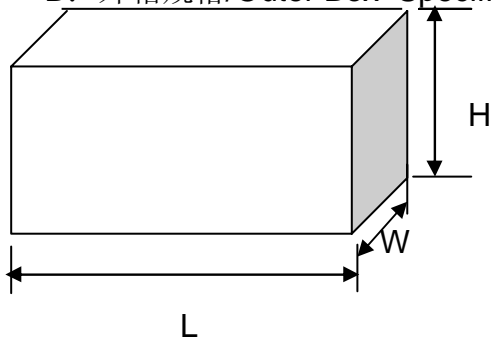
Unit:mm

A: 弹带盒规格/Ammo Box Spec.



Item	Symbol	Dimension	Notes
Box's Size	L	260±2	52mm TYPE
	W	76±2	
	H	100±4	
	L	250±3	26mm TYPE
	W	45±3	
	H	95±5	

B: 外箱规格/Outer Box Specification



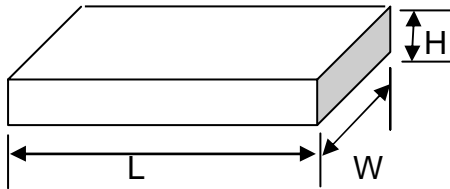
Item	Symbol	Dimension	Notes
Case's Size	L	430±2	52mm TYPE
	W	280±2	
	H	225±4	
	L	435±3	26mm TYPE
	W	280±3	
	H	295±5	

按以上包装方式: (As per the above spec)

	外型/Outside		
	A-405 & DO-41 & R-1	DO-15	DO-201AD
Q'ty/Taping	3K	2K	0.8K
Q'ty/Packing Case 26mm/TYPE	30K	20K	7.2K
Q'ty/Packing Case 52mm/TYPE	60K	40K	14.4K

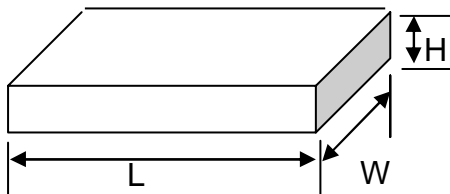
**3. 散装/Bulk Packing**

**A. 包装盒尺寸/Box Dimension**



( DO-41&DO-15 )

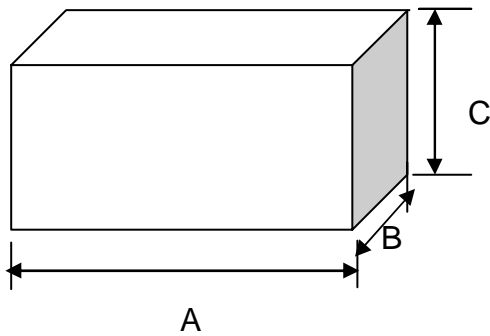
Item	Symbol	Dimension
Box's Size	L	200±2
	W	84±2
	H	21±2



( DO-201AD )

Item	Symbol	Dimension
Box's Size	L	200±2
	W	84±2
	H	29±2

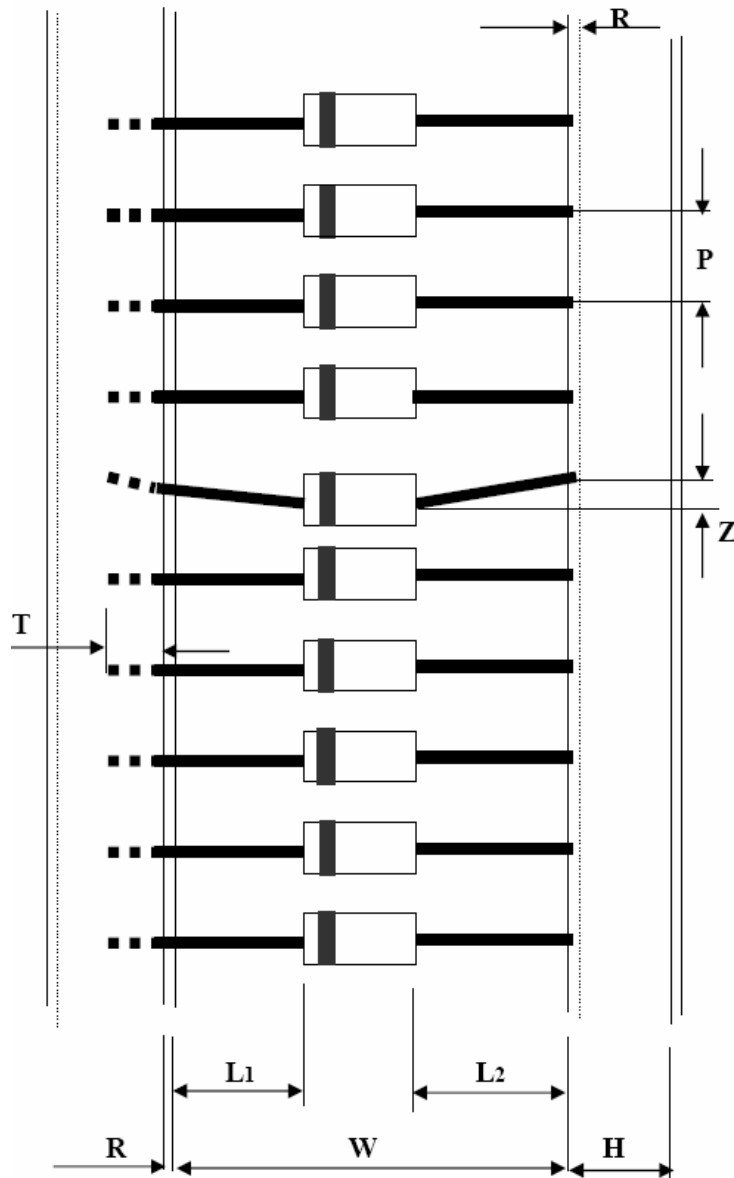
**B: 外箱规格/Outer Box Specification**



Item	Symbol	Dimension
Case's Size	L	465±2
	W	225±2
	H	260±4

按以上包装方式: (As per the above spec)

	外型/Outside		
	DO-41&A-405&R-1	DO-15	DO-201AD
Q'ty/Taping	1K	0.5K	0.3K
Q'ty/Packing Case	50K	25K	12K

**4. 编带图形及规格/Taping Specification**


Unit:mm

尺寸代号	编带尺寸/Tape Dimension		
Dimension Code	26/tape	52/tape	52/tape#
W	26 0.0/+1.6	52 -1.0/+2.0	52 -1.0/+2.0
P	5±0.5	5±0.5	10±0.5
L1-L2	<1.0	<1.2	<1.2
H	6±1.0	6±1.0	6±1.0
Z	<1.2	<1.2	<1.2
R	<1.0	<1.0	<1.0
T	>3.2	>3.2	>3.2

注: 52编带# 为DO-201AD编带规格

Remark: 52 tape# is DO-201AD taping spec.