

SF31G THRU SF38G



Super Fast Glass Passivated Rectifiers

Reverse Voltage: 50 to 600 Volts

Forward Current: 3.0 Ampere

RoHS Device

Halogen Free

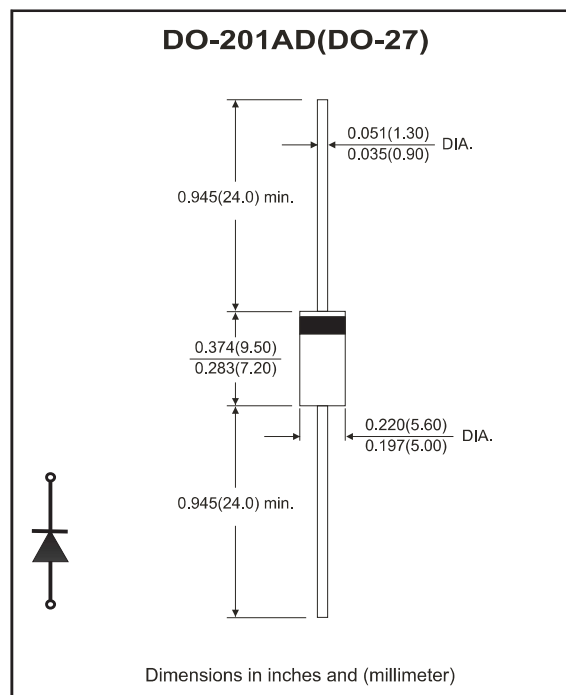


Features

- Glass passivated chip junction.
- Low reverse leakage.
- High forward surge current capability.
- High temperature soldering guaranteed 260°C/10 seconds at terminals.

Mechanical data

- Epoxy: UL 94V-0 rate flame retardant.
- Case: DO-201AD, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Weight: 0.98 grams approx.
- Mounting position: Any.



Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load derate current by 20%.

Parameter		Symbol	SF31G	SF32G	SF33G	SF34G	SF35G	SF36G	SF38G	Unit
Max. repetitive peak reverse voltage		V _{RRM}	50	100	150	200	300	400	600	V
Max. RMS voltage		V _{RMS}	35	70	105	140	210	280	420	V
Max. DC blocking voltage		V _{DC}	50	100	150	200	300	400	600	V
Max. average forward rectified current at T _L =125°C		I _(AV)	3.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	125							A
Max. instantaneous forward voltage at 3.0A		V _F	0.95				1.25		1.7	V
Max. DC reverse current at rated DC blocking voltage	@T _A =25°C	I _R	10							μA
	@T _A =100°C	I _R	50							
Max. reverse recovery time (Note 1)		T _{rr}	35							nS
Typical Junction capacitance (Note 2)		C _J	100				50			pF
Typical thermal resistance		R _{θJA}	30							°C/W
Operating junction and storage temperature range		T _J , T _{STG}	-65 to +150							°C

Notes: 1. Reverse recovery time test condition: $I_F=0.5\text{A}$, $I_R=0.1\text{A}$, $I_{rr}=0.25\text{A}$
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

Company reserves the right to improve product design , functions and reliability without notice.

Rev:1.0

Rating and Characteristic Curves

FIG. 1- FORWARD CURRENT DERATING CURVE

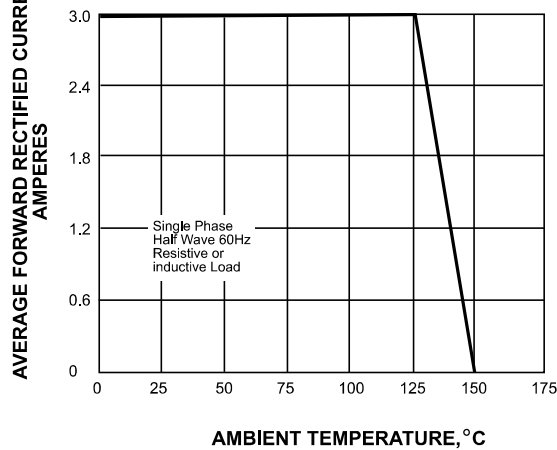


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

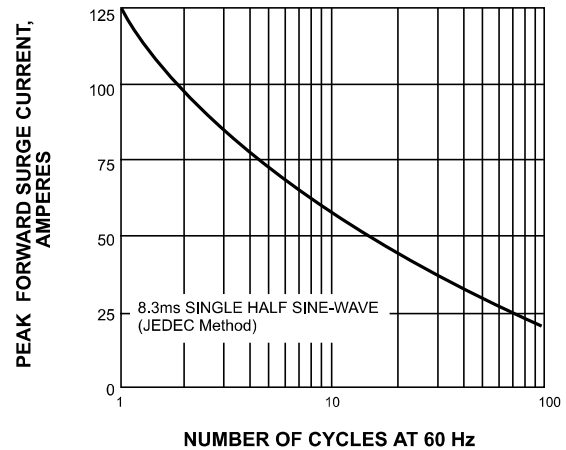


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

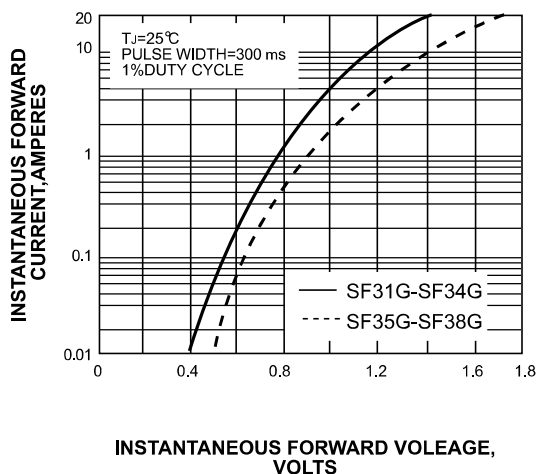


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

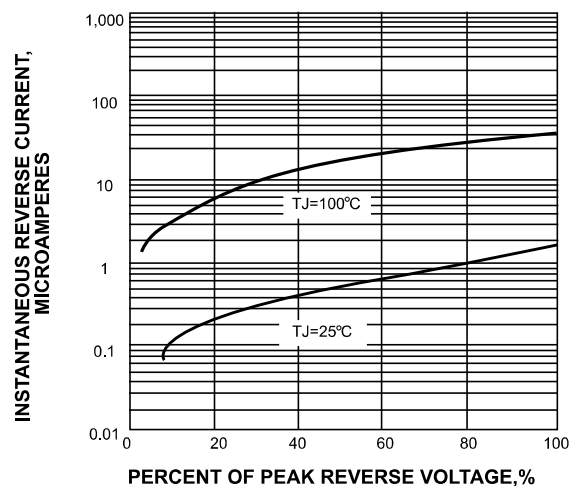


FIG. 5-TYPICAL JUNCTION CAPACITANCE

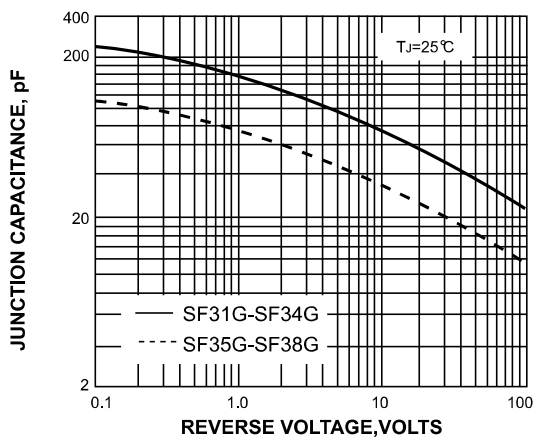
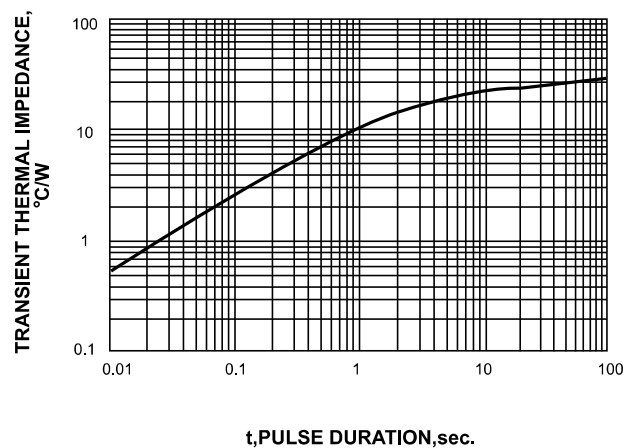


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Marking Code

Part Number	Marking code	Packaging
SF31G	SF31G	AMMO
SF32G	SF32G	AMMO
SF33G	SF33G	AMMO
SF34G	SF34G	AMMO
SF35G	SF35G	AMMO
SF36G	SF36G	AMMO
SF38G	SF38G	AMMO
SF31GT	SF31G	REEL
SF32GT	SF32G	REEL
SF33GT	SF33G	REEL
SF34GT	SF34G	REEL
SF35GT	SF35G	REEL
SF36GT	SF36G	REEL
SF38GT	SF38G	REEL
SF31GB	SF31G	BULK
SF32GB	SF32G	BULK
SF33GB	SF33G	BULK
SF34GB	SF34G	BULK
SF35GB	SF35G	BULK
SF36GB	SF36G	BULK
SF38GB	SF38G	BULK



XX = Product type marking code

Note:

1) Suffix code after part number to specify packaging item.

Packaging	Code
AMMO PACK	NA
REEL PACK	T
BULK PACK	B

Standard Packaging

Case Type	AMMO PACK
	BOX (pcs)
DO-201AD	1,250

Case Type	BULK PACK
	BOX (pcs)
DO-201AD	200

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-201AD	1,200	13

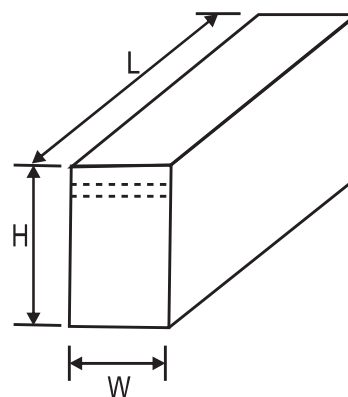
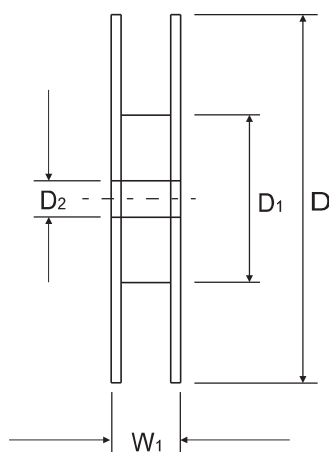
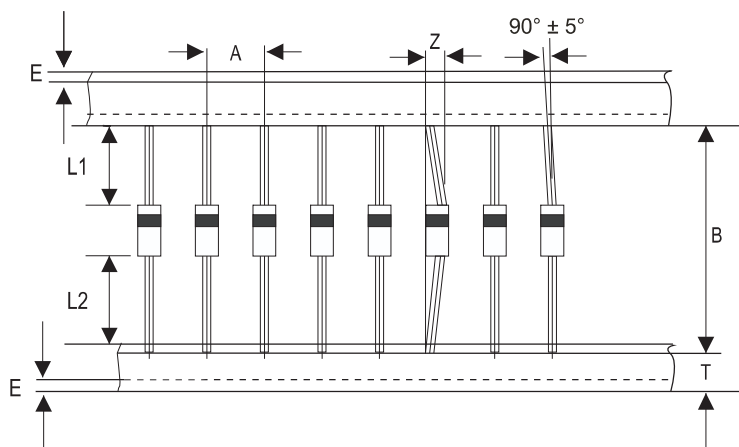
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Taping Specification For Axial Lead Diodes



DO-201AD	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	10.00 ± 0.50	52.40 + 1.50 - 0.40	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.394 ± 0.020	2.063 + 0.059 - 0.016	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

DO-201AD	SYMBOL	L	W	H	D	D1	D2	W1
	(mm)	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00	330	85.70 ± 0.30	16.60 ± 0.40	79.00 ± 1.00
	(inch)	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197	12.992	3.374 ± 0.012	0.654 ± 0.016	3.110 ± 0.039

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