

SF21 THRU SF28



Super Fast Rectifiers

Reverse Voltage: 50 to 600 Volts

Forward Current: 2.0 Ampere

RoHS Device

Halogen Free

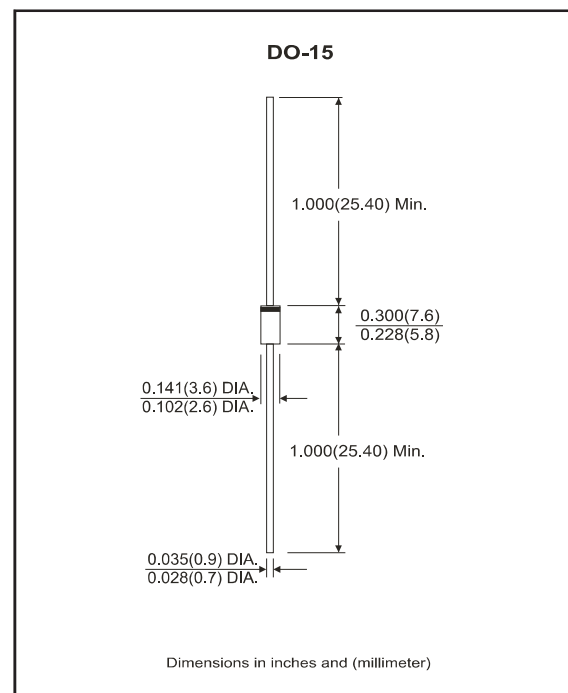


Features

- Open junction chip.
- 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-15, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Weight: 0.40 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	SF21	SF22	SF23	SF24	SF25	SF26	SF28	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 =100°C		I _(AV)	2.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	50							A
Max. instantaneous forward voltage at 2.0A		V _F	0.95				1.25		1.7	V
Max. DC reverse current at rated DC blocking voltage	@T _A =25°C	I _R	5							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	60				30			pF
Typical thermal resistance		R _{θJA}	50							°C/W
Operating junction and storage temperature range		T _J , T _{STG}	-65 to +150							°C

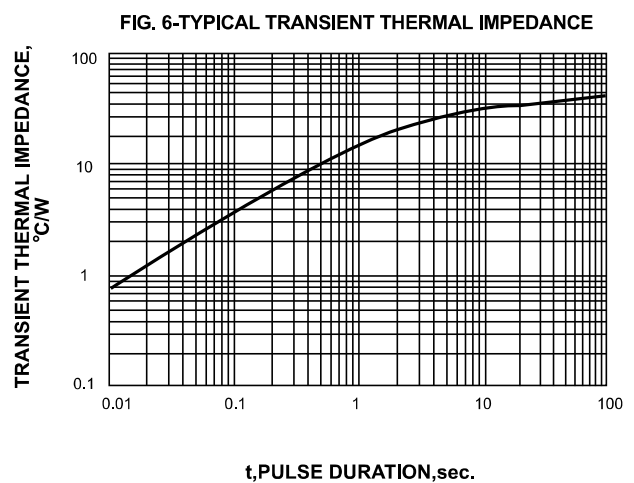
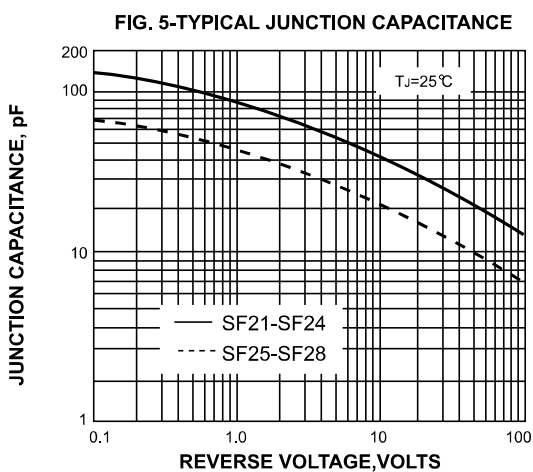
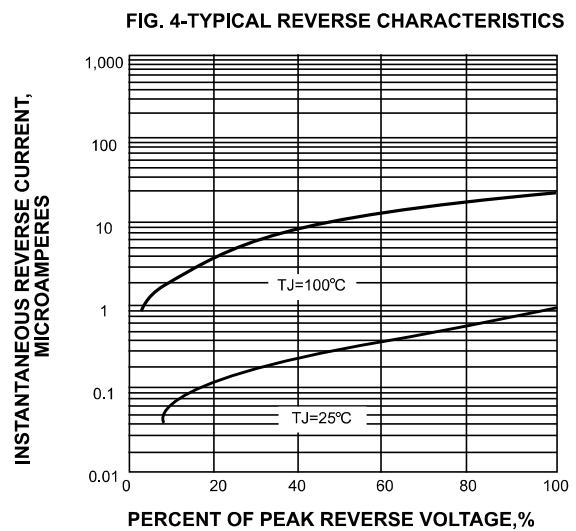
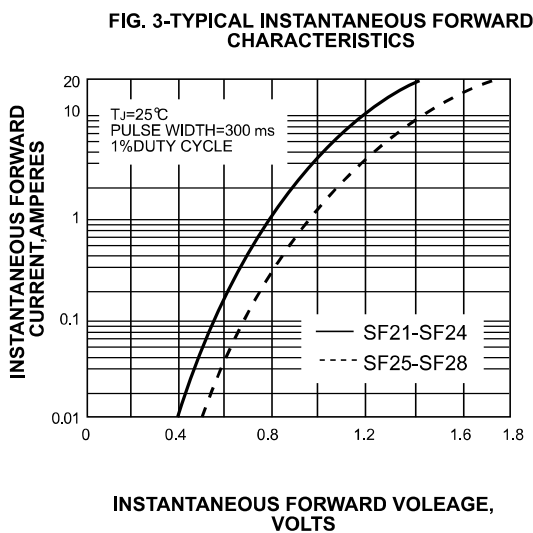
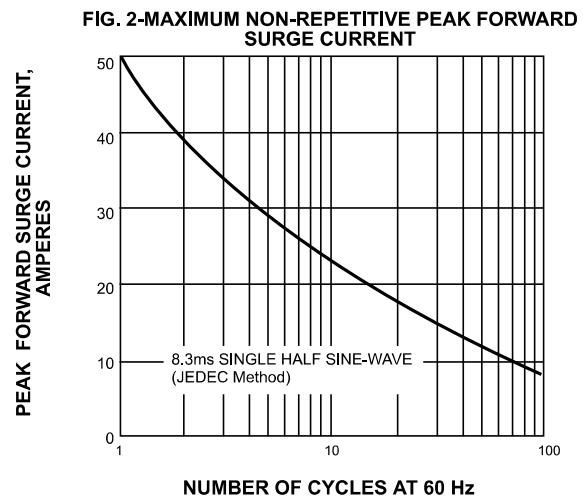
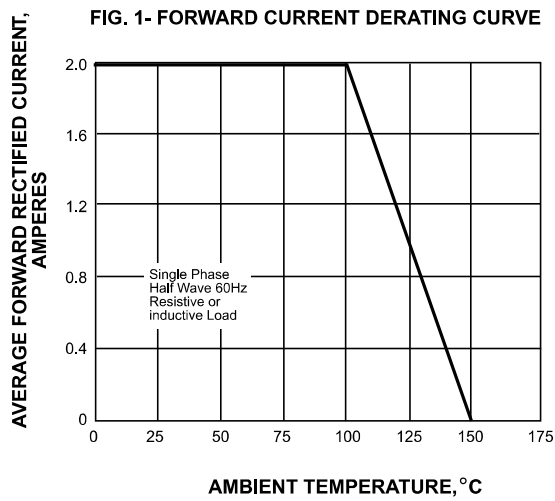
Notes: 1. Reverse recovery time test condition: $I_F=0.5\text{A}$, $I_R=0.1\text{A}$, $I_{rr}=0.25\text{A}$

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



Marking Code

Part Number	Marking code	Packaging
SF21	SF21	AMMO
SF22	SF22	AMMO
SF23	SF23	AMMO
SF24	SF24	AMMO
SF25	SF25	AMMO
SF26	SF26	AMMO
SF28	SF28	AMMO
SF21T	SF21	REEL
SF22T	SF22	REEL
SF23T	SF23	REEL
SF24T	SF24	REEL
SF25T	SF25	REEL
SF26T	SF26	REEL
SF28T	SF28	REEL
SF21B	SF21	BULK
SF22B	SF22	BULK
SF23B	SF23	BULK
SF24B	SF24	BULK
SF25B	SF25	BULK
SF26B	SF26	BULK
SF28B	SF28	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

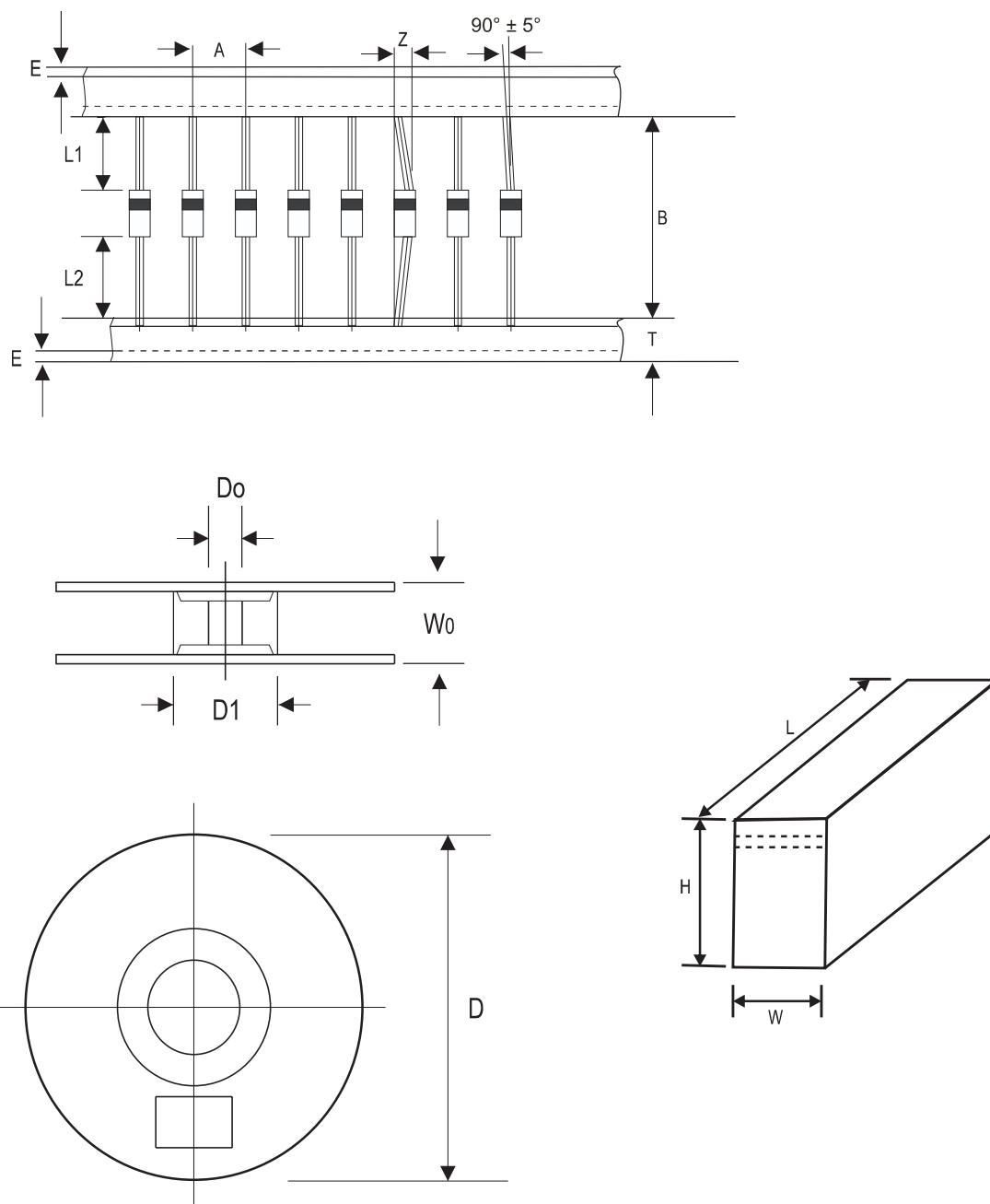
Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	
DO-15	3,000	

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-15	4,000	13

Case Type	BULK PACK	
	BOX (pcs)	
DO-15	500	

Taping Specification For Axial Lead Diodes



DO-15	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	52.40 + 1.50 - 0.40	1.20 (max)	6.00 ± 0.40	0.80 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.063 + 0.059 - 0.016	0.047 (max)	0.236 ± 0.016	0.031 (max)	0.039 (max)

DO-15	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	79.00 ± 1.00	255.00 ± 5.00	75.00 ± 5.00	150.00 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	12.992	3.110 ± 0.039	10.039 ± 0.197	2.953 ± 0.197	5.906 ± 0.197

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