

SF11G THRU SF18G



Super Fast Glass Passivated Rectifiers

Reverse Voltage: 50 to 600 Volts

Forward Current: 1.0 Ampere

RoHS Device

Halogen Free

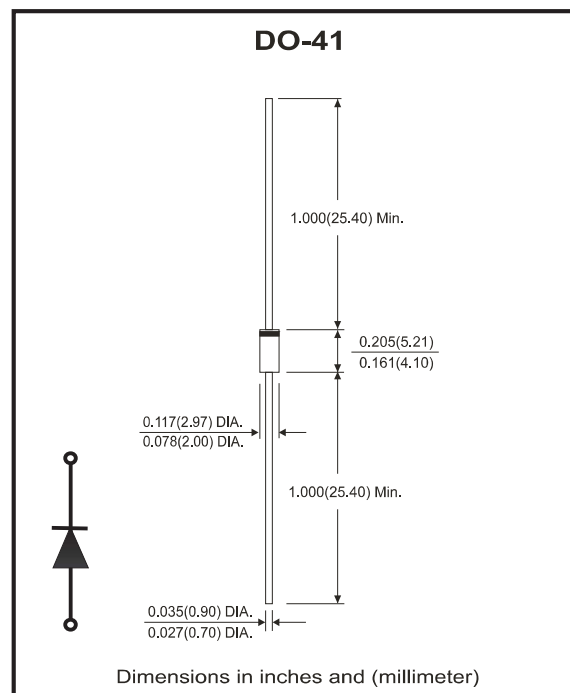


Features

- 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-41, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode.
- Weight: 0.321 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	SF11G	SF12G	SF13G	SF14G	SF15G	SF16G	SF18G	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)	1.0							A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load		I _{FSM}	30							A
Max. instantaneous forward voltage at 1.0A		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 =125°C	I _R	50							
Max. reverse recovery time (Note 1)		T _{rr}	35							nS
Typical Junction capacitance (Note 2)		C _J	50				25			pF
Typical thermal resistance		R _{θJA}	60							°C/W
Operating junction and storage temperature range		T _J , T _{STG}	-55 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

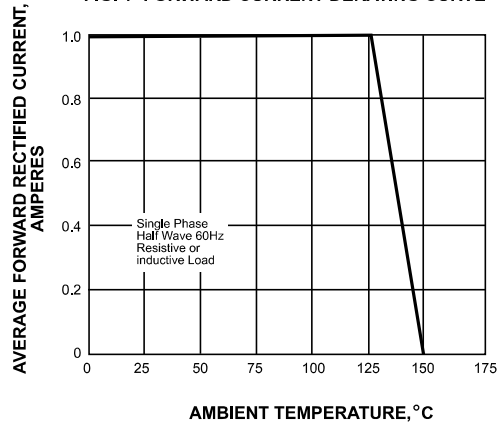


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

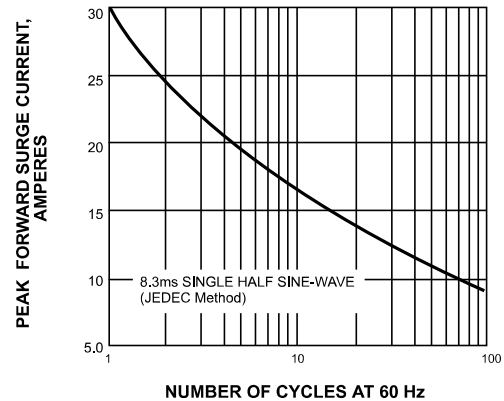


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

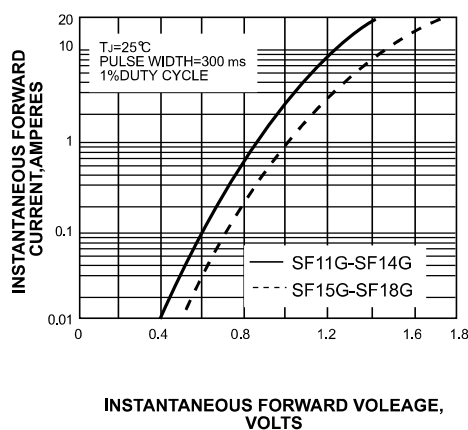


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

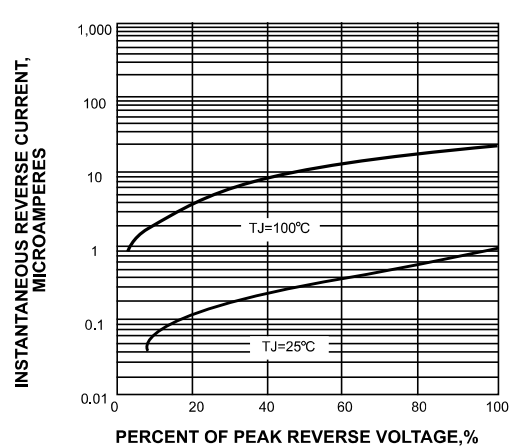


FIG. 5-TYPICAL JUNCTION CAPACITANCE

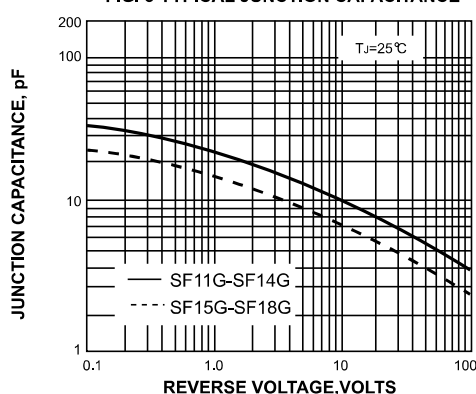
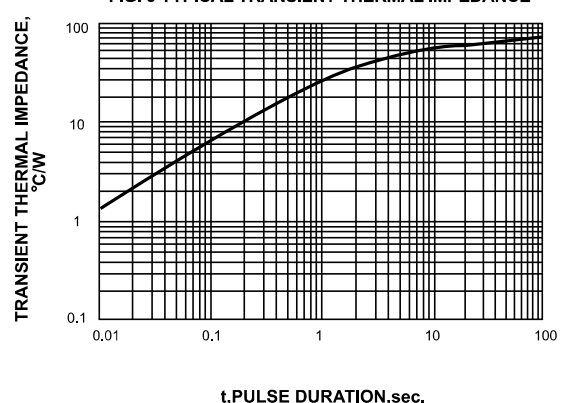


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Marking Code

Part Number	Marking code	Packaging
SF11G	SF11G	AMMO
SF12G	SF12G	AMMO
SF13G	SF13G	AMMO
SF14G	SF14G	AMMO
SF15G	SF15G	AMMO
SF16G	SF16G	AMMO
SF18G	SF18G	AMMO
SF11GT	SF11G	REEL
SF12GT	SF12G	REEL
SF13GT	SF13G	REEL
SF14GT	SF14G	REEL
SF15GT	SF15G	REEL
SF16GT	SF16G	REEL
SF18GT	SF18G	REEL
SF11GB	SF11G	BULK
SF12GB	SF12G	BULK
SF13GB	SF13G	BULK
SF14GB	SF14G	BULK
SF15GB	SF15G	BULK
SF16GB	SF16G	BULK
SF18GB	SF18G	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

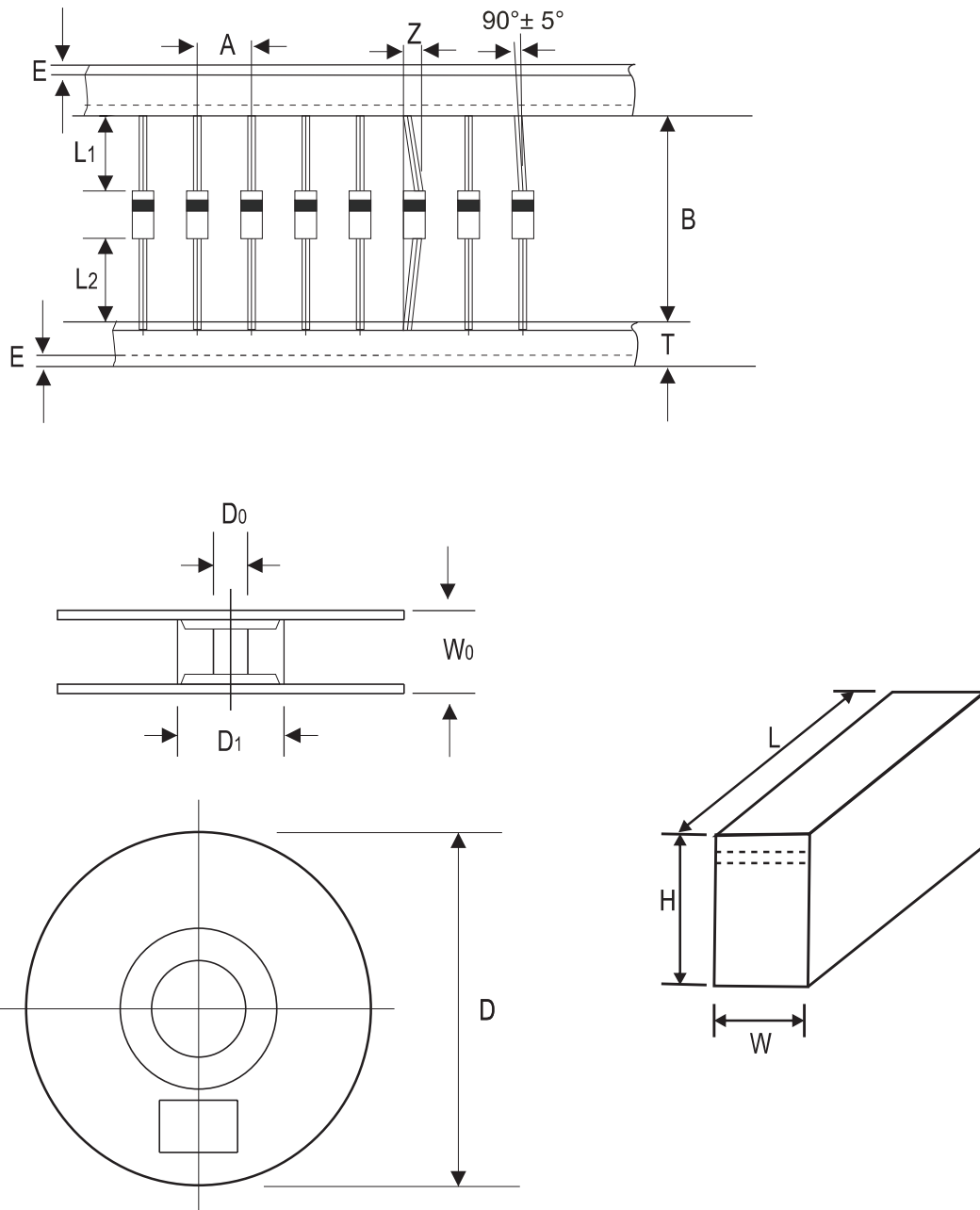
Standard Packaging

Case Type	AMMO PACK	
	BOX (pcs)	
DO-41	5,000	

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
DO-41	5,000	13

Case Type	BULK PACK	
	BOX (pcs)	
DO-41	1,000	

Taping Specification For Axial Lead Diodes



DO-41	SYMBOL	A	B	Z	T	E	L1-L2
	(mm)	5.00 ± 0.50	52.40 ± 1.50	1.60 (max)	6.00 ± 0.40	3.00 (max)	1.00 (max)
	(inch)	0.197 ± 0.020	2.063 ± 0.059	0.063 (max)	0.236 ± 0.016	0.118 (max)	0.039 (max)

DO-41	SYMBOL	D1	D0	D	W0	L	W	H
	(mm)	85.70 ± 0.30	16.60 ± 0.40	330.00	72.00 ± 3.00	260 ± 5.00	75 ± 5.00	145 ± 5.00
	(inch)	3.374 ± 0.012	0.654 ± 0.016	13.000	2.835 ± 0.118	10.236 ± 0.197	2.953 ± 0.197	5.709 ± 0.197

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