

SR120 THRU SR1100



Schottky Barrier Rectifiers

Reverse Voltage: 20 to 100 Volts

Forward Current: 1.0 Ampere

RoHS Device

Halogen Free

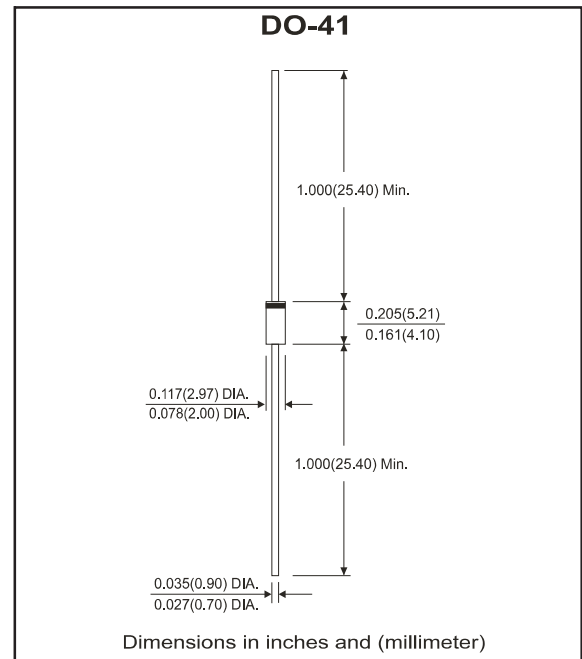


Features

- Low drop down voltage.
- Metal-Semiconductor junction with guard ring
- High surge current capability
- For use in low voltage, high efficiency inverters, free wheeling, and polarity protection applications

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case: Molded plastic body DO-41
- Terminals: Solderable per MIL-STD-750 Method 2026
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Weight: 0.34grams



Electrical Characteristics

(at TA=25°C unless otherwise noted)
Ratings at TA=25°C unless otherwise noted.

Parameter	Symbol	SR120	SR140	SR145	SR150	SR160	SR180	SR1100	Unit
Maximum recurrent peak reverse voltage	V _{RRM}	20	40	45	50	60	80	100	V
Maximum RMS voltage	V _{RMS}	14	28	30	35	42	56	70	V
Maximum DC blocking voltage	V _{DC}	20	40	45	50	60	80	100	V
Maximum average forward rectified current 0.375" (9.5mm) lead length at TA=75°C, See Figure 1	I(AV)	1.0							A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method) TL=110°C	I _{FSM}	30							A
Maximum forward voltage at 1.0A	V _F	0.55			0.70		0.85		V
Maximum DC reverse current At rated DC blocking voltage T _A =25°C T _A =100°C	I _R	0.5							mA
		10			5				
Typical junction capacitance (Note 1)	C _J	110			80		30		pF
Typical thermal resistance (Note 2)	R _{θJA}	50.0							°C/W
	R _{θJL}	30.0							
Operating junction temperature range	T _J	-55 to +125			-55 to +150				°C
Storage temperature range	T _{STG}	-55 to +150							°C

NOTES:

1. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts.
2. Thermal resistance junction to ambient and junction to lead.

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

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Rating and Characteristic Curves

Fig.1- Forward Current Derating Curve

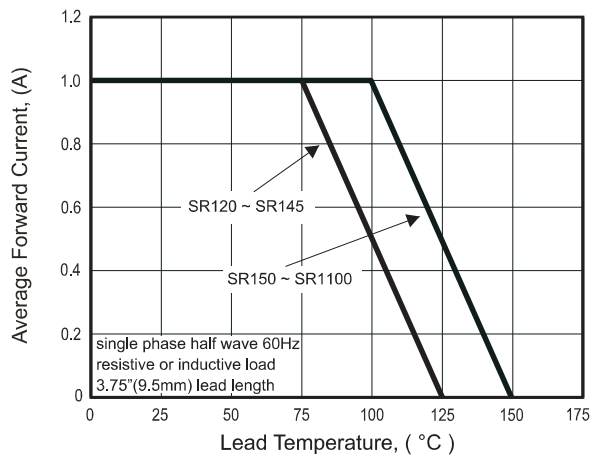


Fig.2 - Maximum Non-repetitive Peak Forward Surge Current

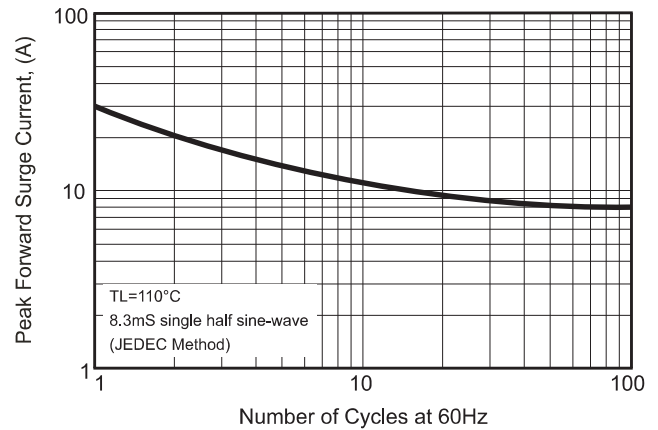


Fig.3 - Typical Instantaneous Forward Characteristics

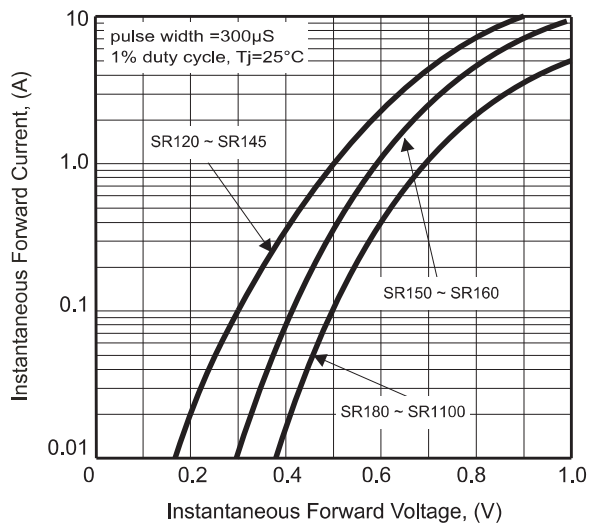


Fig.4A - Typical Reverse Characteristics

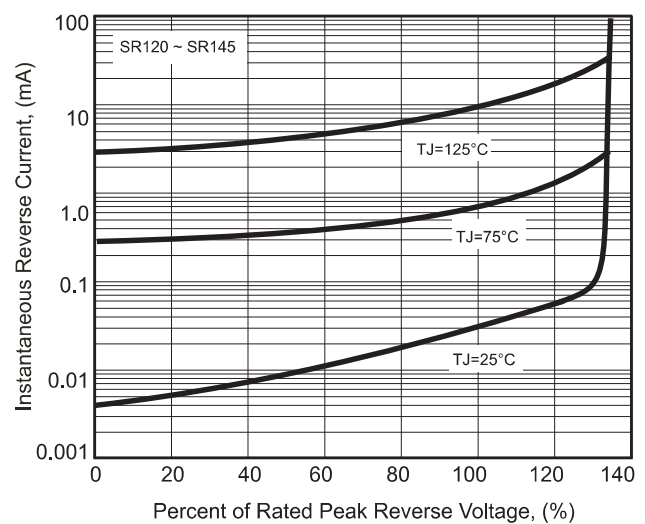


Fig.5 - Typical Junction Capacitance

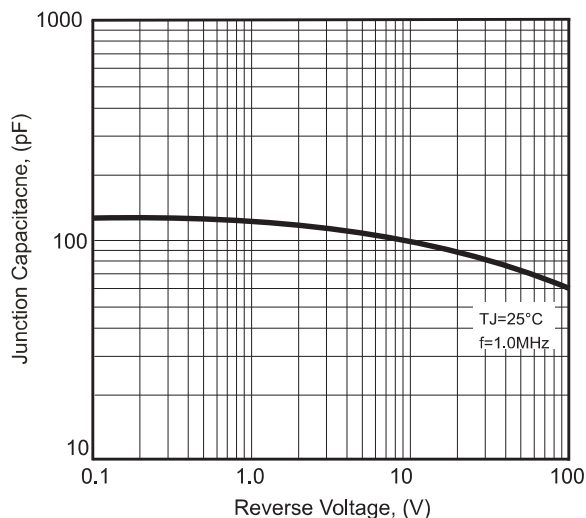
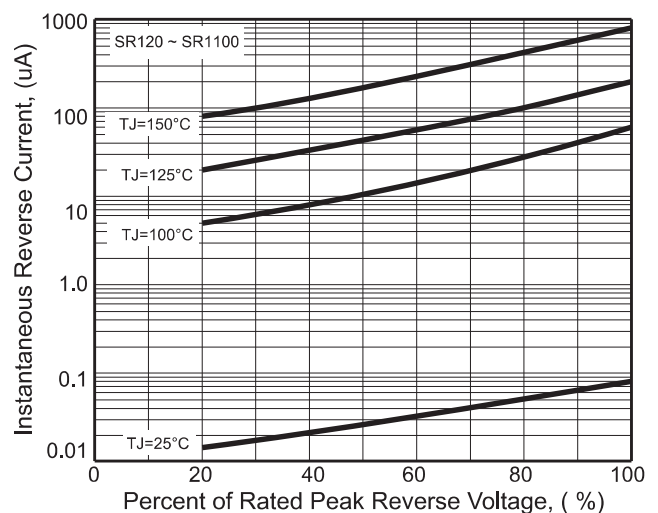


Fig. 4B - Typical Reverse Characteristic

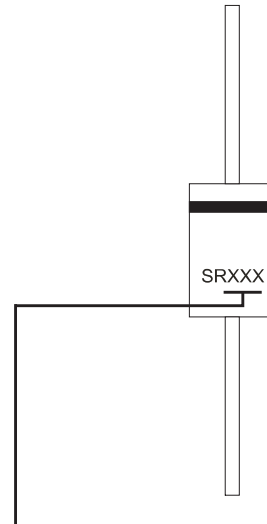


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Marking Code

Part Number	Marking Code	Packaging
SR120	SR120	AMMO
SR140	SR140	AMMO
SR145	SR145	AMMO
SR150	SR150	AMMO
SR160	SR160	AMMO
SR180	SR180	AMMO
SR1100	SR1100	AMMO
SR120B	SR120	BULK
SR140B	SR140	BULK
SR145B	SR145	BULK
SR150B	SR150	BULK
SR160B	SR160	BULK
SR180B	SR180	BULK
SR1100B	SR1100	BULK
SR120T	SR120	REEL
SR140T	SR140	REEL
SR145T	SR145	REEL
SR150T	SR150	REEL
SR160T	SR160	REEL
SR180T	SR180	REEL
SR1100T	SR1100	REEL



XXX / XXXX = Product type marking code

Note:

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

Packaging	Code
AMMO PACK	NA
BULK PACK	B
REEL PACK	T

Standard Packaging

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

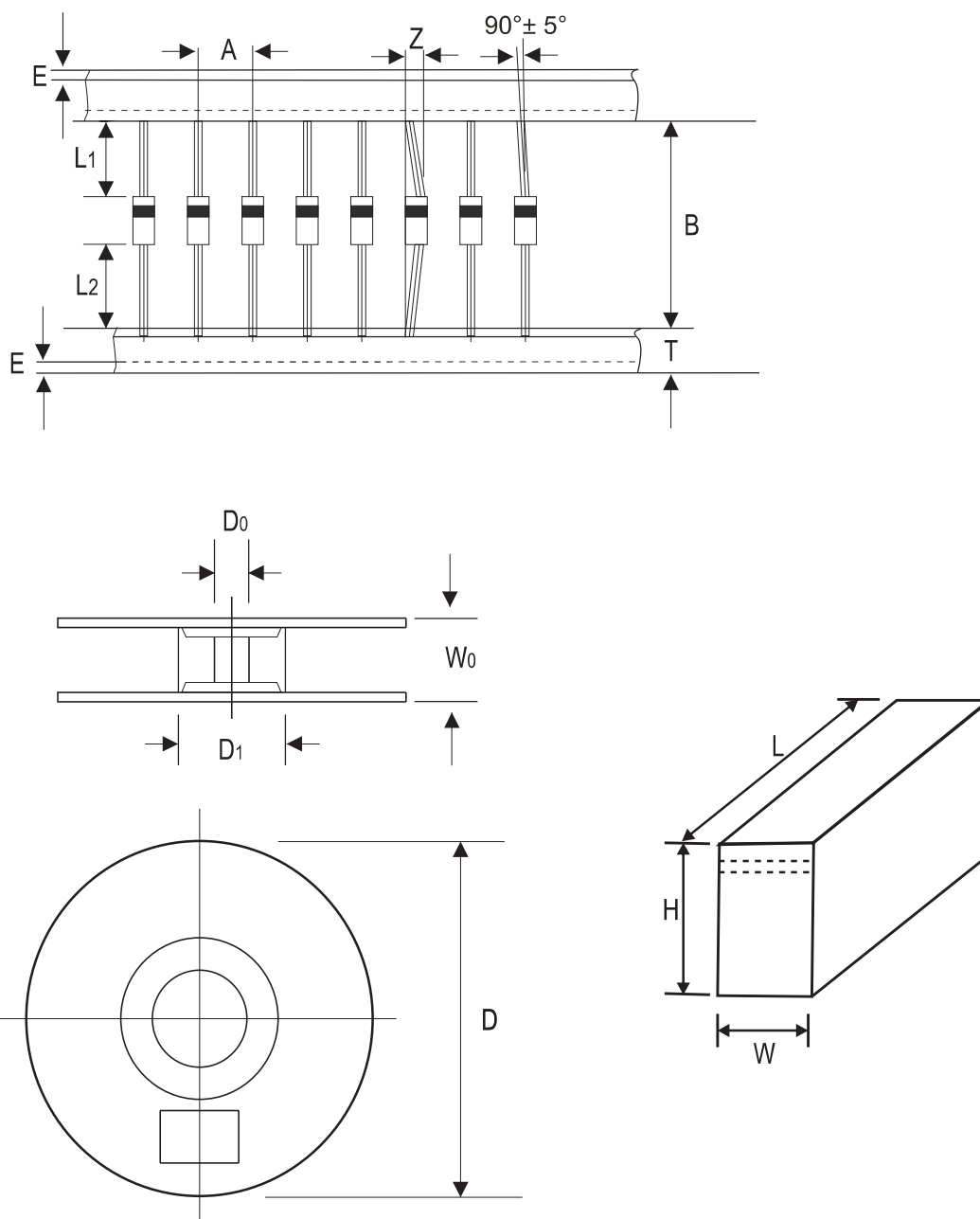
Case Type	BULK PACK
	BOX (pcs)
DO-41	1000

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

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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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