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Data Sheet No.: FSDP-151-A

1.5 AMP FAST RECOVERY SILICON DIODES

FEATURES:

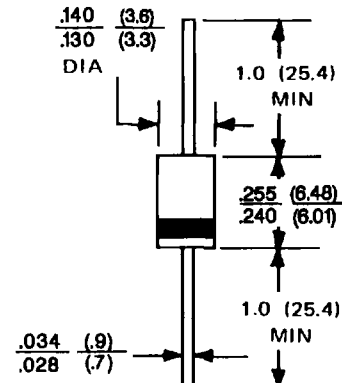
- Low cost
- Low leakage
- Low forward voltage drop
- High current capability
- Fast switching for high efficiency
- The plastic material carries U/L recognition 94V-0

MECHANICAL DATA

- Case: JEDEC DO-15, molded plastic
- Terminals: Plated axial leads, solderable per MIL-STD-202, method 208
- Mounting Position: Any
- Polarity: Color band denotes cathode end
- Weight: 0.4 grams

VOLTAGE RANGE
50 to 1000 Volts
CURRENT
1.5 Amps

DO-15



Dimensions in inches & (millimeters)

MAXIMUM RATINGS & 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%.

MAXIMUM RATING @ T _A =25°C (unless otherwise specified)	SYMBOL								UNITS
Series Number		RP150	RP151	RP152	RP154	RP156	RP158	RP1510	
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	
Maximum Average Forward Rectified Current 0.375 in. (9.5mm) Lead Length @ T _A = 75°C	I _(AV)	1.5							Amps
Peak Forward Surge Current, 8.3ms single half sine wave superimposed on rated load (JEDEC method)	I _{FSM}	60							
Max. Instantaneous Forward Voltage at 1.5 Amps	V _F	1.3							Volts
Maximum DC Reverse Current @: T _A = 25°C at Rated DC Blocking Voltage T _A = 100°C	I _R	5 100							μA
Typical Junction Capacitance (Note 1)	C _J	25							pf
Maximum Reverse Recovery Time (Note 2)	T _{rr}	150				250	500 (Note 3)		nS
Operating & Storage Temperature Range	T _J , T _{STG}	- 65 to + 175							°C

- NOTES: (1) Measured at 1MHz & applied reverse voltage of 4V DC.
 (2) Reverse recovery test conditions: I_F = 0.5A, I_R = 1A, I_{RR} = 0.25A (See Fig. 5)
 (3) 300nS available - consult with factory.



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RATING & CHARACTERISTIC CURVES (RP150-1510)

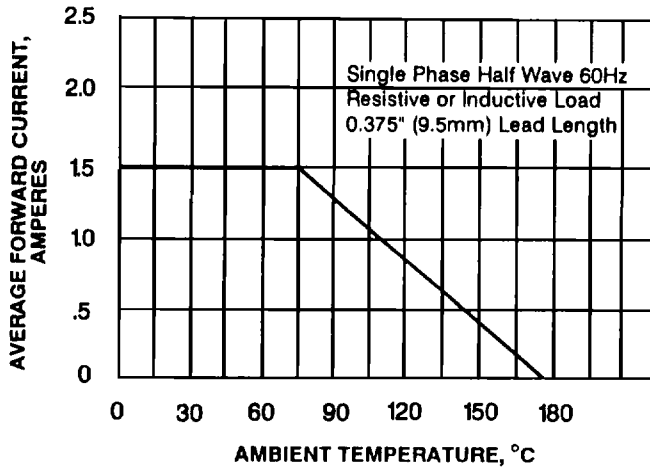


Fig. 1: Typical forward current derating curve.

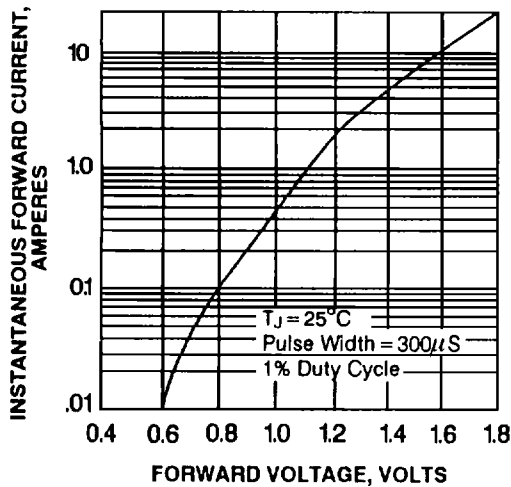


Fig. 3: Typical forward characteristics.

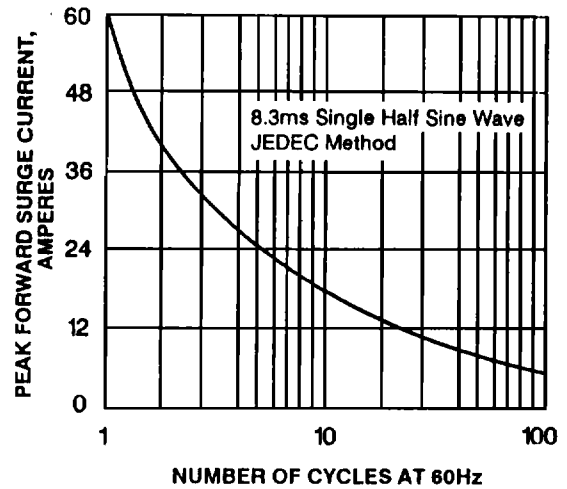


Fig. 2: Maximum non-repetitive forward surge current.

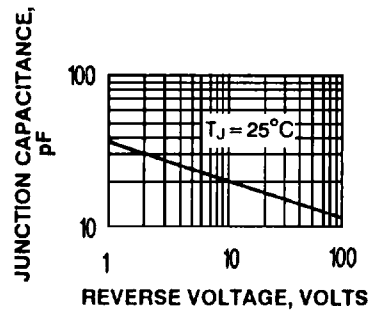


Fig. 4: Typical junction capacitance.

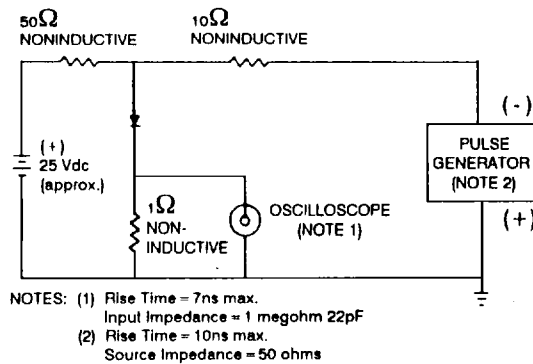


Fig. 5: Test circuit diagram & reverse recovery time characteristics.