



FR151L thru FR157L

1.5 Amps. Fast Recovery Rectifiers
Voltage Range 50 to 1000 Volts Forward Current 1.5 Amperes

Features

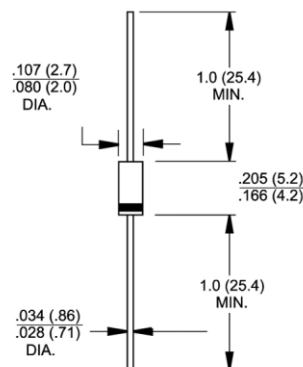
- ◆ Fast switching for high efficiency
- ◆ Low cost
- ◆ Diffused junction
- ◆ Low reverse leakage current
- ◆ Low forward voltage drop
- ◆ High current capability
- ◆ The plastic material carries UL recognition 94V-0



DO-204AL (DO-41)

Mechanical Data

- ◆ Case : JEDEC DO-204AL (DO-41) molded plastic
- ◆ Polarity : Color band denotes cathode
- ◆ Weight : 0.012 ounce, 0.34 gram
- ◆ 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%

Dimensions in inches and (millimeters)

Parameter	Symbols	FR151L	FR152L	FR153L	FR154L	FR155L	FR156L	FR157L	Units
Maximum repetitive 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	Volts
Maximum DC blocking voltage	V _{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current @T _A =50°C	I _(AV)	1.5							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	50.0							Amps
Maximum forward voltage at 1.5A DC	V _F	1.2							Volts
Maximum DC reverse current at rated DC blocking voltage @T _J =25°C @T _J =100°C	I _R	5.0 100							uA
Maximum reverse recovery time (Note 1)	t _{rr}	150				250	500		nS
Typical junction capacitance (Note 2)	C _j	30				20			pF
Typical thermal resistance (Note 3)	R _{θJA}	50							°C/W
Operating temperature range	T _j	-55 to +125							°C
Storage temperature range	T _{STG}	-55 to +150							°C

- Notes:**
1. Measured with $I_F = 0.5\text{A}$, $I_R = 1\text{A}$, $I_{RR} = 0.25\text{A}$.
 2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
 3. Thermal Resistance Junction to Ambient.

RATINGS AND CHARACTERISTIC CURVES

FIG.1 - FORWARD CURRENT DERATING CURVE

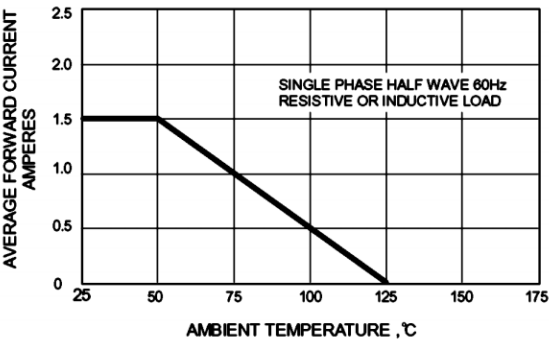


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

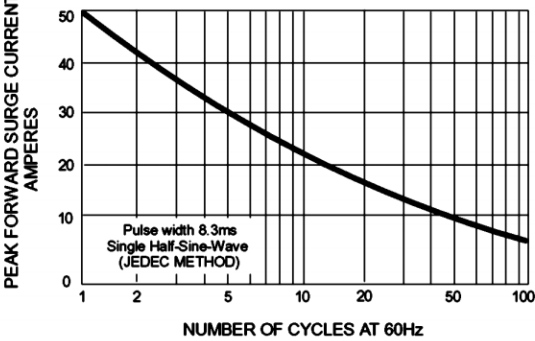


FIG.3 - TYPICAL JUNCTION CAPACITANCE

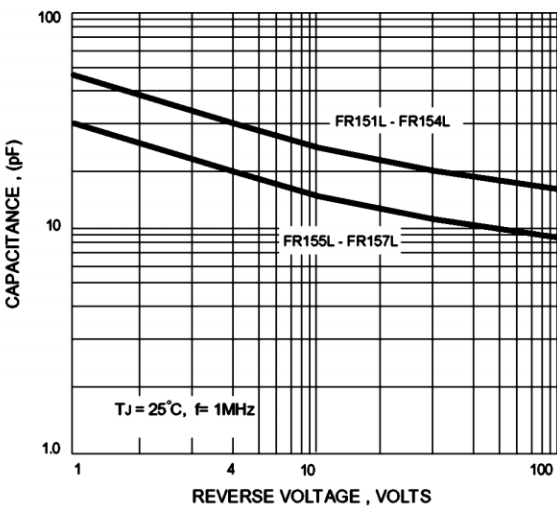


FIG.4 - TYPICAL FORWARD CHARACTERISTICS

