

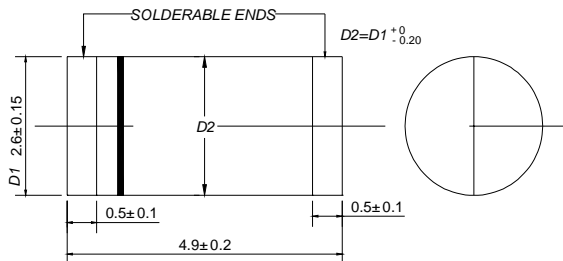


DLFR101 THRU DLFR107

SURFACE MOUNT RECTIFIERS

VOLTAGE RANGE : 50 --- 1000 V CURRENT: 1.0 A

DO - 213AB



Dimensions in millimeters

FEATURES

- Plastic package has underwriters laboratories flammability classification 94V-0
- Glass passivated chip junction
- For surface mount applications
- High temperature metallurgically bonded construction
- Cavity-free glass passivated junction
- High temperature soldering guaranteed: 450 /5 seconds at terminals. Complete device sub-mersible temperature of 265 for 10 seconds in solder bath

MECHANICAL DATA

- Case: JEDEC DO-213AB, molded plastic
- Terminals: Axial lead ,solderable per MIL- STD-750, Method 2026
- Polarity: Color band denotes cathode
- Weight: 0.0046 ounces, 0.116 grams
- Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.

		DL FR101	DL FR102	DL FR103	DL FR104	DL FR105	DL FR106	DL FR107	UNITS
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	V
Maximum average forward rectified current $T_T=55$	$I_{(AV)}$	1.0							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30							A
Maximum instantaneous forward voltage @1.0A	V_F	1.3							V
Maximum reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	I_R	5.0 50							μA
Maximum reverse recovery time (Note 1)	t_{rr}	150			250		500		ns
Typical junction capacitance (Note 2)	C_j	15							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$	75							/W
Operating junction temperature range	T_j	- 55 ---- +175							
Storage temperature range	T_{STG}	- 55 ---- +175							

NOTE: 1. Measured with $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3. Thermal resistance from junction to ambient, 0.24x0.24"(6.0x6.0mm) copper pads to each terminal.

RATINGS AND CHARACTERISTIC CURVES DLFR101 THRU DLFR107

FIG.1 – FORWARD CURRENT DERATING CURVE

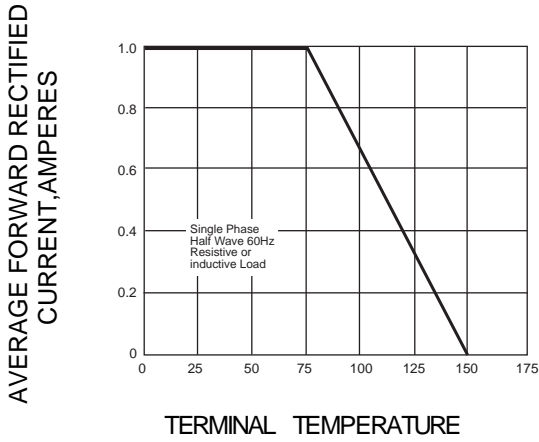
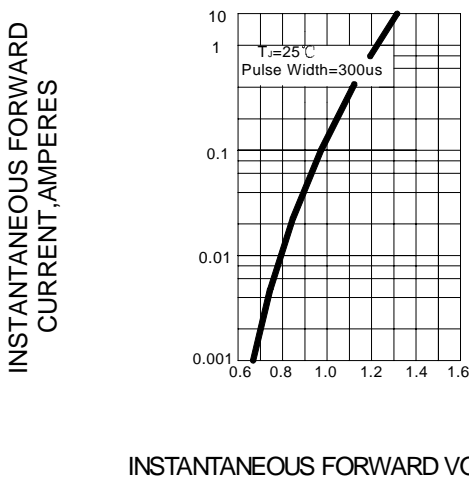


FIG.3 – TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS FORWARD VOLTAGE(V)

FIG.5 – TYPICAL JUNCTION CAPACITANCE

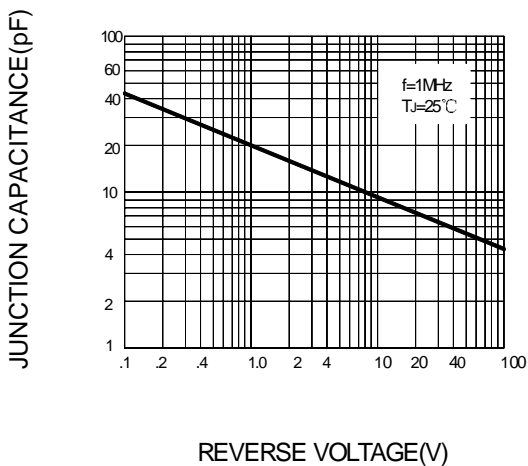


FIG.2 – MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

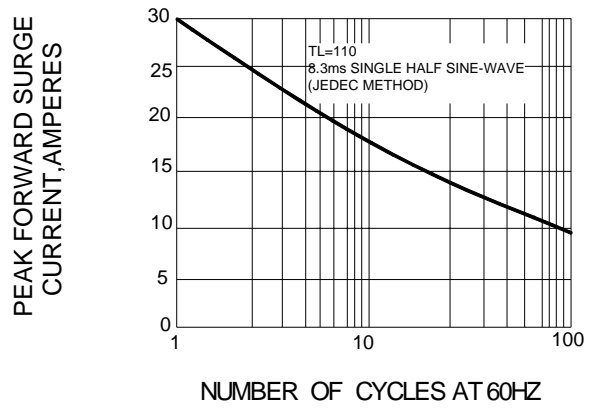
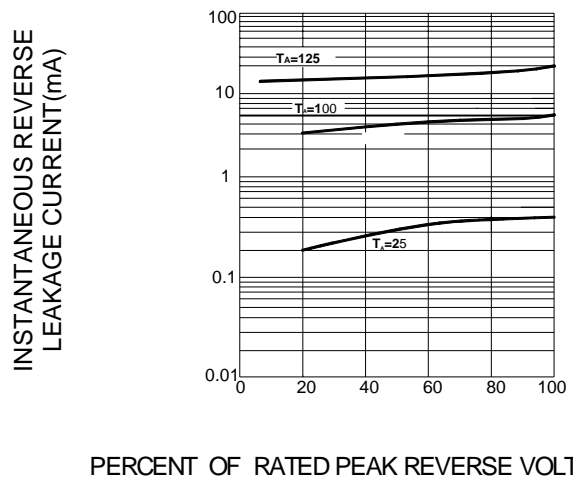


FIG.4 – TYPICAL REVERSE CHARACTERISTICS



PERCENT OF RATED PEAK REVERSE VOLTAGE. (%)

FIG.6 – TYPICAL TRANSIENT THERMAL IMPEDANCE

