



**DC COMPONENTS CO., LTD.**  
RECTIFIER SPECIALISTS

DL4148  
DL4448  
DL4150  
DL4151

**TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODES**

**VOLTAGE RANGE - 50 to 100 Volts**

**POWER - 500 mWatts**

**FEATURES**

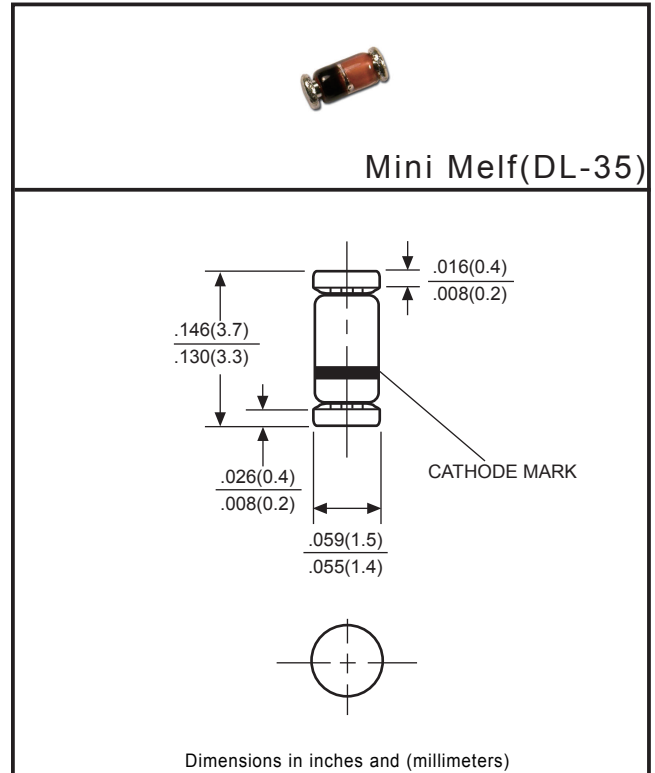
- \* Fast switching speed
- \* Silicon epitaxial planar diodes
- \* Low power loss, high efficiency
- \* Low leakage
- \* High surge forward current capability

**MECHANICAL DATA**

- \* Case: Glass sealed case
- \* Terminals: Solder plated, solderable per MIL-STD-202E, Method 208 guaranteed
- \* Polarity: Color band denotes cathode end
- \* Mounting position: Any
- \* Weight: 0.05 grams

**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%.



	SYMBOL	DL4148	DL4448	DL4150	DL4151	UNITS
Maximum Recurrent Peak Reverse Voltage	V <sub>RRM</sub>	100	100	50	75	V
Maximum Average Forward Current	I <sub>FAV</sub>	150	150	200	150	mA
Maximum Power Dissipation T <sub>A</sub> = 25°C	P <sub>tot</sub>	500	500	500	500	mW
Maximum Forward Voltage	V <sub>F</sub> @I <sub>F</sub>	1.0/10	1.0/100	1.0/200	1.0/50	V/mA
Maximum Reverse Current	I <sub>R</sub> @V <sub>R</sub>	5/75	5/75	0.1/50	0.05/50	µA/V
Maximum Reverse Recovery Time	t <sub>rr</sub>	4.0	4.0	4.0	2.0	nS
Typical Thermal Resistance	R <sub>θJA</sub>	300	350	350	350	°C/W
Typical Junction Capacitance	C <sub>J</sub>	4.0	4.0	4.0	2.0	pF
Surge Forward Current, t < 1µs	I <sub>FSM</sub>	2000	2000	4000	2000	mA
t < 1s		500				
Operating and Storage Temperature Range	T <sub>J</sub> ,T <sub>STG</sub>	-65 to +175				°C

NOTES: 1. C<sub>J</sub> at V<sub>R</sub> = 0, f = 1 MHz.  
2. From I<sub>F</sub> = 10mA to I<sub>R</sub> = 1mA, V<sub>R</sub> = 6Volts, R<sub>L</sub> = 100Ω

# RATING AND CHARACTERISTIC CURVES (DL4148)

FIG. 1  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

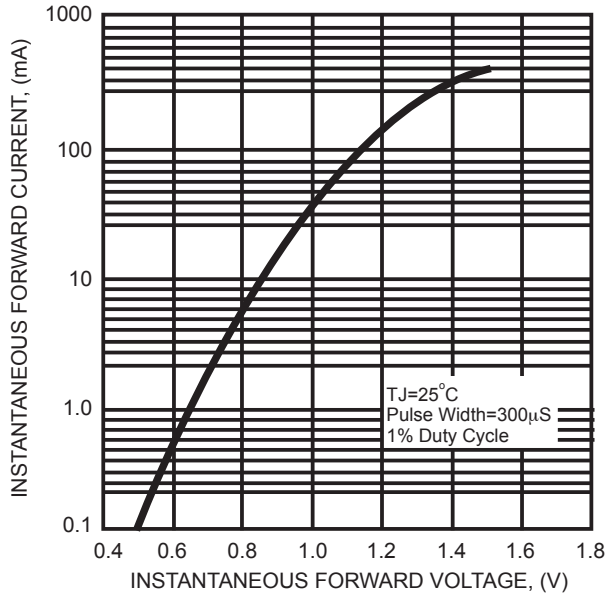


FIG. 2  
TYPICAL FORWARD CURRENT  
DERATING CURVE

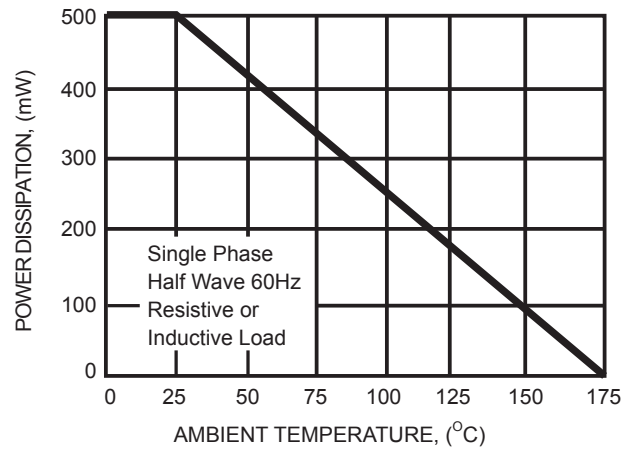
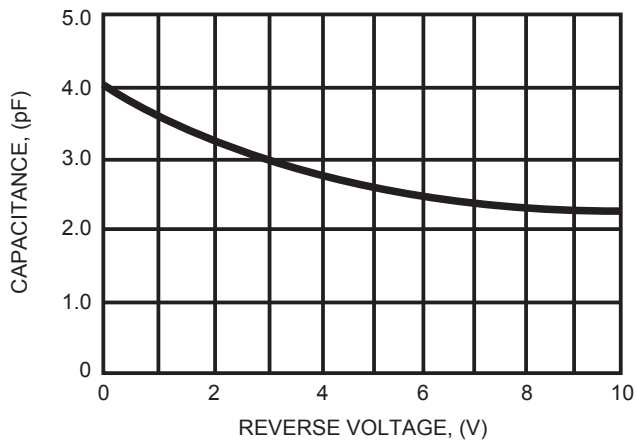


FIG. 3  
TYPICAL JUNCTION CAPACITANCE



# RATING AND CHARACTERISTIC CURVES (DL4448)

FIG. 1  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

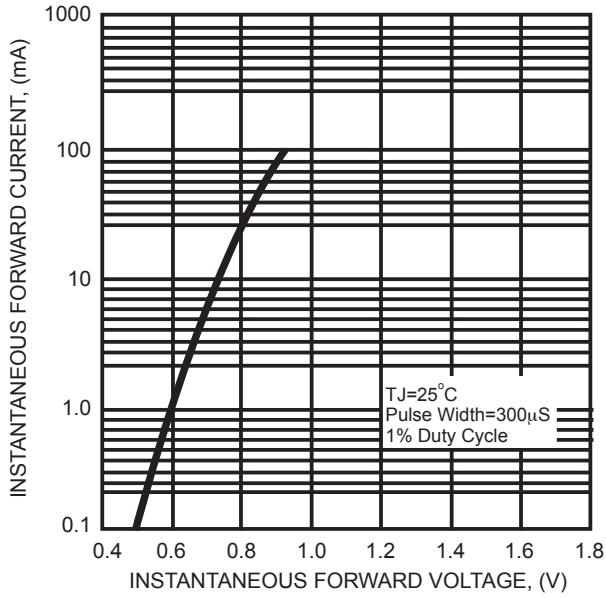


FIG. 2  
TYPICAL FORWARD CURRENT  
DERATING CURVE

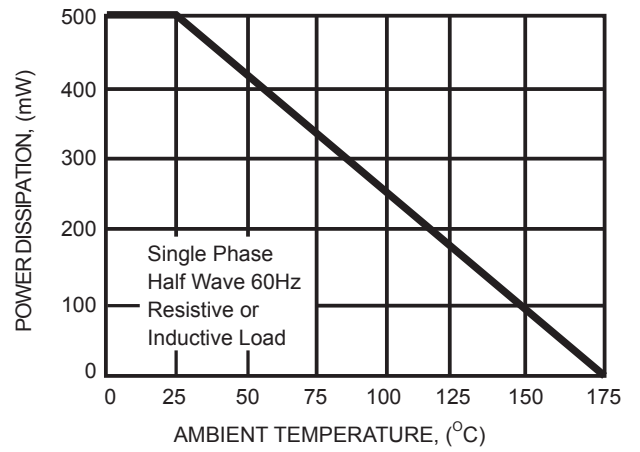
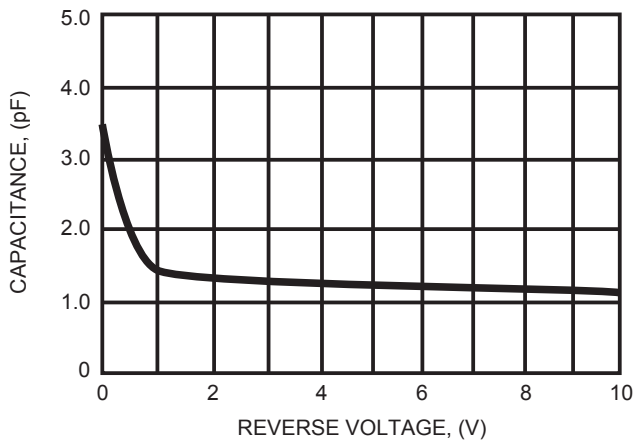


FIG. 3  
TYPICAL JUNCTION CAPACITANCE



# RATING AND CHARACTERISTIC CURVES (DL4150)

FIG. 1  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

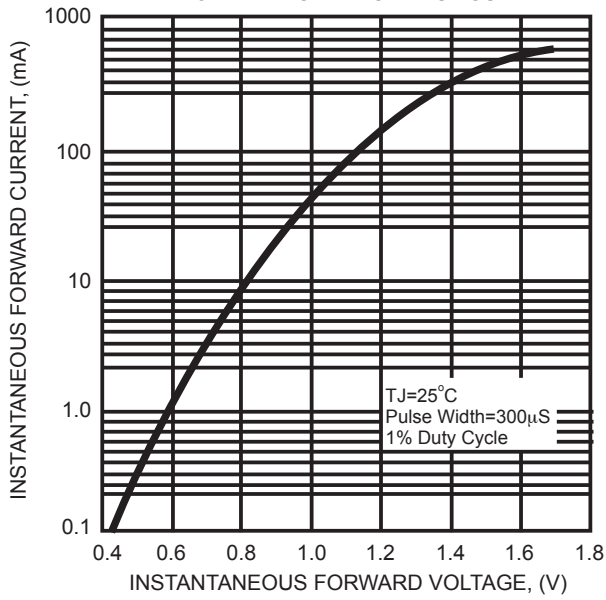


FIG. 2  
TYPICAL FORWARD CURRENT  
DERATING CURVE

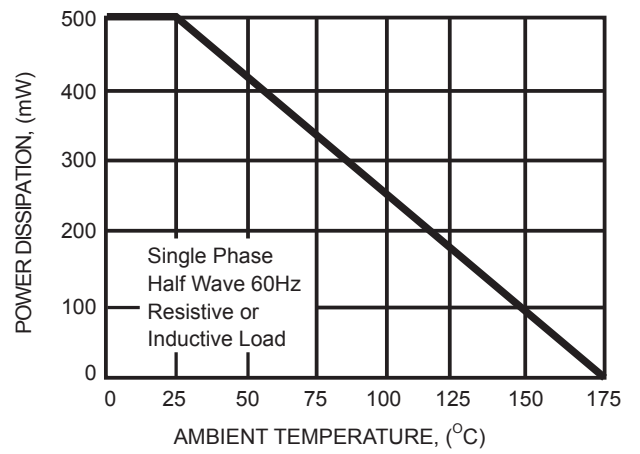
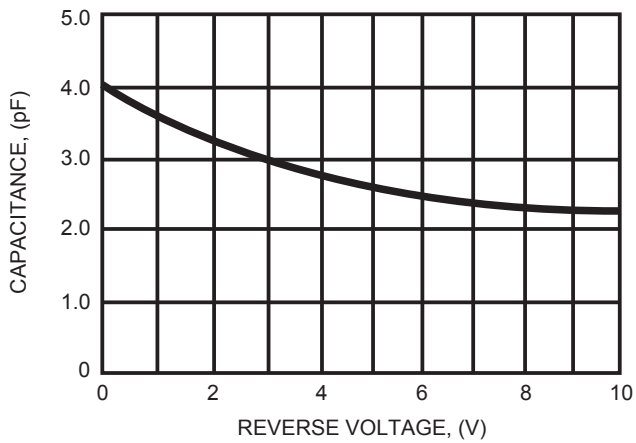


FIG. 3  
TYPICAL JUNCTION CAPACITANCE



# RATING AND CHARACTERISTIC CURVES (DL4151)

FIG. 1  
TYPICAL INSTANTANEOUS  
FORWARD CHARACTERISTICS

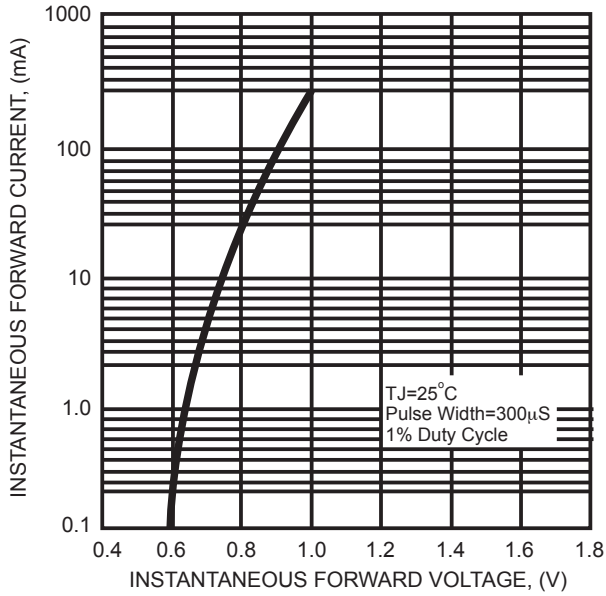


FIG. 2  
TYPICAL FORWARD CURRENT  
DERATING CURVE

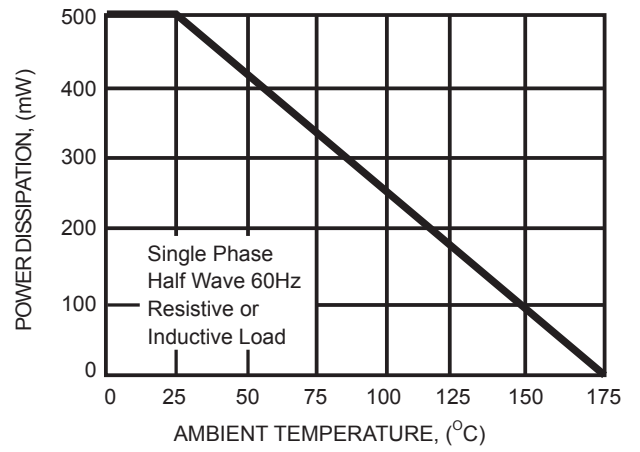
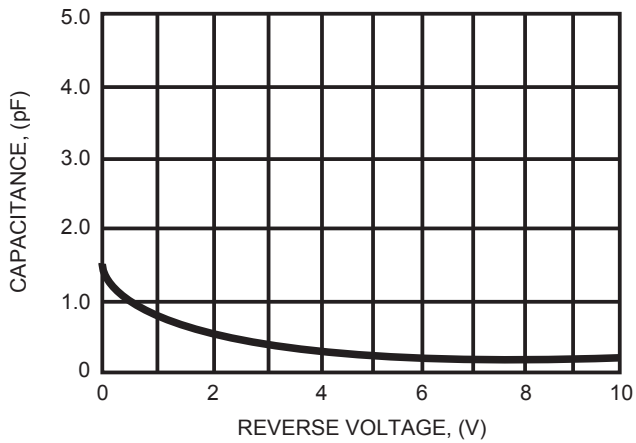


FIG. 3  
TYPICAL JUNCTION CAPACITANCE



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