DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

DL4148 THRU DL4448

TECHNICAL SPECIFICATIONS OF SURFACE MOUNT SWITCHING DIODES

VOLTAGE - 50 to 100 Volts

FEATURES

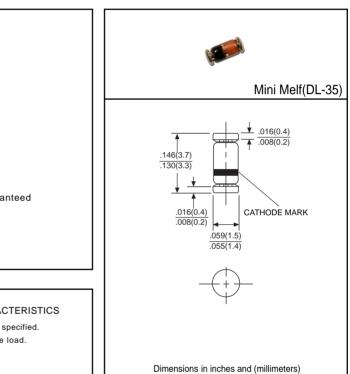
- * Silicon epitaxial planar diodes
- * Low power loss, high efficiency
- * Low leakage
- * Low forward voltage
- * High speed switching
- * High current capability

MECHANICAL DATA

- * Case: Glass sealed case
- * Terminals: Solder plated, solderable per MIL-STD-750, Method 2026 guaranteed
- * Polarity: Color band denotes cathode end
- * Mounting position: Any
- * Weight: 0.05 grams Approx.

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%.



	SYMBOL	DL4148	DL4150	DL4151	DL4448	UNITS
Maximum Recurrent Peak Reverse Voltage	Vrrm	100	50	75	100	V
Maximum Average Forward Current	IFAV	150	200	150	150	mA
Maximum Power Dissipation Tamb=25°C	Ptot	500	500	500	500	mW
Maximum Forward Voltage	VF/@IF	1.0/10	1.0/200	1.0/50	1.0/100	V/mA
Maximum Reverse Current	IR/@VR	5000/75	100/50	50/50	5000/75	nA/V
Maximum Reverse Recovery Time	trr	4.0	4.0	2.0	4.0	nS
Repetitive Peak Forward Current	IFRM	500				mA
Peak Forward Surge Current, tp = 1μ S	IFSM	0.5				A
Forward Continuous Current	lF	300				mA
Typical Junction Capacitance	CJ	4.0				pF
Operating and Storage Temperature Range	TJ,TSTG	-65 to +200				°C

CURRENT - 0.15 to 0.2 Ampere

RATING AND CHARACTERISTIC CURVES (DL4148 THRU DL4448) REF: DL4148

Admissible repetitive peak forward current versus pulse duration А 100 I 5 FRM v=tp /T T=l /fp 3 2 IFRM tp 10 v=0 5 Т 0.1 3 0.2 2 0.5 1 5 3 2 S 5 5 2 2 5 2 5 2 5 2 2 5 10-5 10-4 10-2 10-1 10⁻³ 1 10 tp Dynamic forward resistance Forward characteristics mΑ versus forward current Ω 10³ 10⁴ ТТ 5 Tj=25°C f=1kHz 2 IF Rf 10² 10³ 5 10 2 10² 5 1 2 10 10-1 5 Tj=100°C~Tj=25°C 10⁻² 2 1 V 1 mΑ 0 1 2 10-2 10² 10-1 10 1 IF VF Admissible power dissipation Relative capacitance mW versus ambient temperaturs versus reverse voltage 1000 900 1.1 Ctot(VR) Ti=25°C Ptot 800 f=1kHz Ctot(OV) 700 1.0 600 500 0.9 400 100 0.8 200 100 0.7 0 °C V 0 100 200 0 2 4 6 8 10

VR

Tamb

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