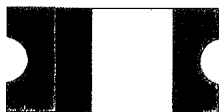




Data Sheet

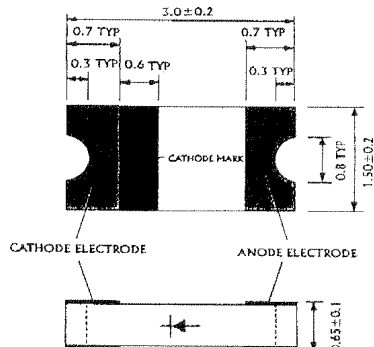
Description

CD4148



SWITCHING CHIP DIODE

Mechanical Dimensions



Features

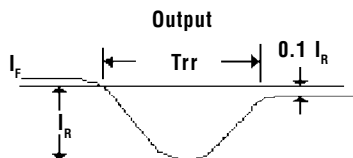
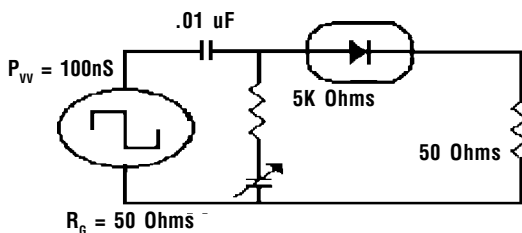
■ **ELECTRICALLY IDENTICAL TO JEDEC 1N4148**

■ **350 mW POWER DISSIPATION**

■ **INDUSTRY STANDARD 1206 PACKAGE**

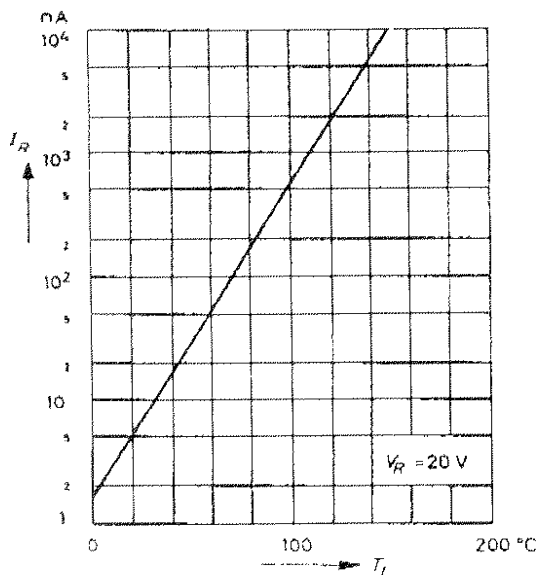
Electrical Characteristics @ 25°C.	CD4148	Units
Maximum Ratings	CD4148	
Peak Reverse Voltage... V_{RM}	100	Volts
RMS Reverse Voltage... $V_{R(rms)}$	75	Volts
Peak Forward Current... I_F	200	mAmps
Peak Forward Surge Current... I_{FSM}	2000	mAmps
Forward Voltage... V_F @ $I_F = 10$ mA	1.0	Volts
DC Reverse Current... I_R @ $V_R = 75$ v	5.0	μAmps
Power Dissipation... P_D	350	mW
Typical Junction Capacitance... C_J	4	pF
Reverse Recovery Time... T_{RR}	4	nS
Operating Temperature... T_J	175	°C
Storage Temperature Range... T_{STRG}	-55 to 150	°C

Device Under Test



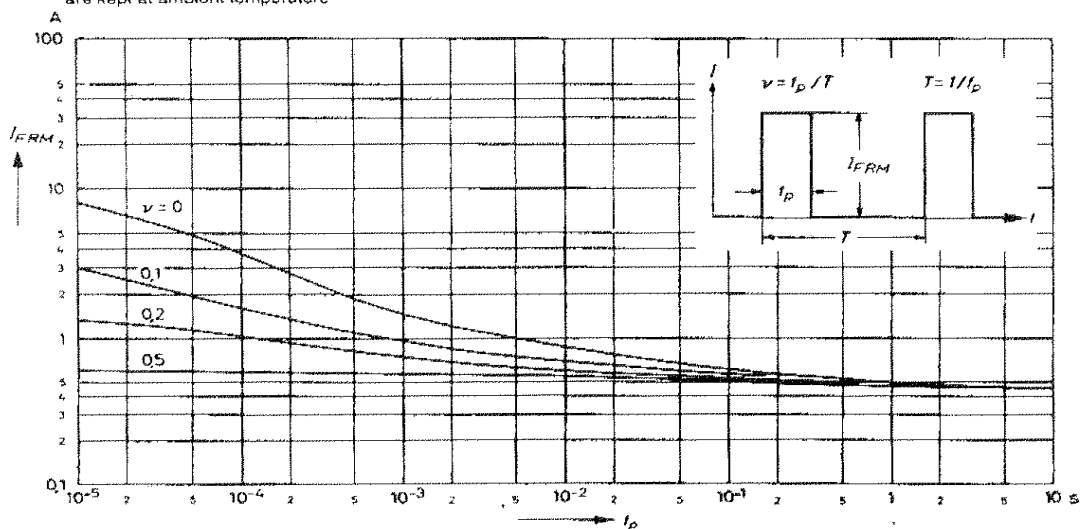
CD4148 SWITCHING CHIP DIODE

Leakage current
versus junction temperature



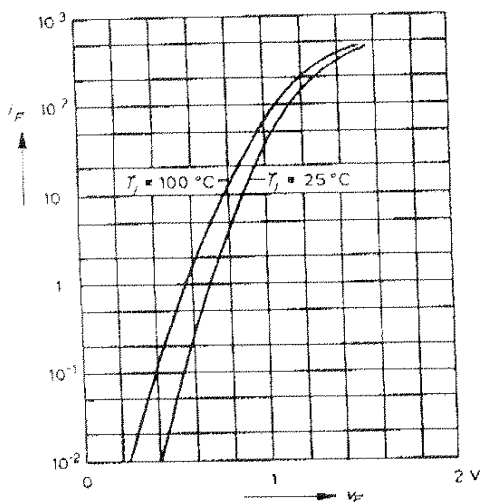
Admissible repetitive peak forward current versus pulse duration

Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature

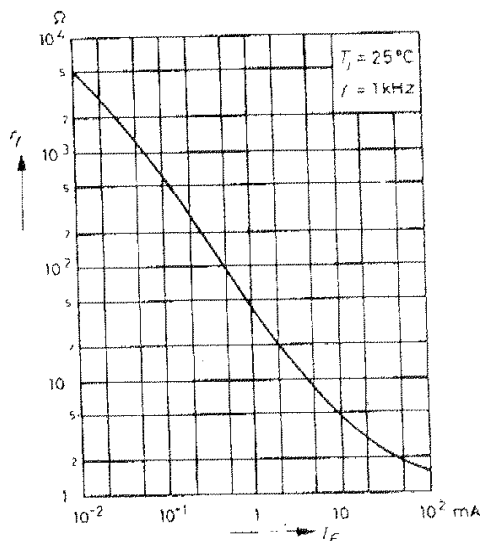


CD4148 SWITCHING CHIP DIODE

Forward characteristics

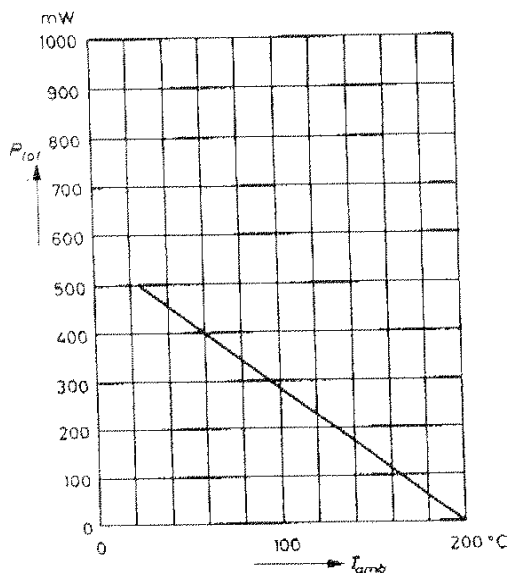


Dynamic forward resistance
versus forward current

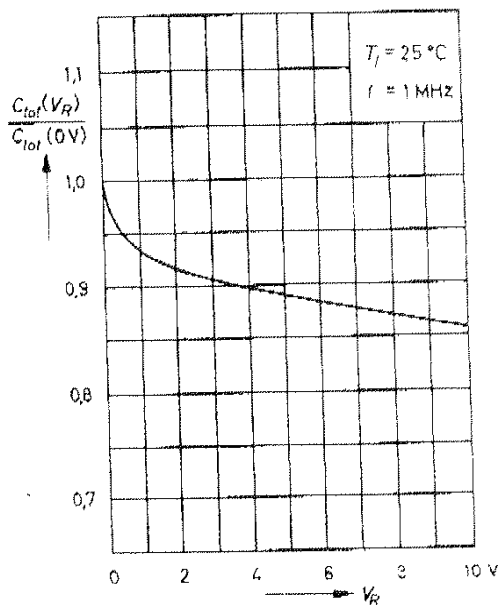


Admissible power dissipation
versus ambient temperature

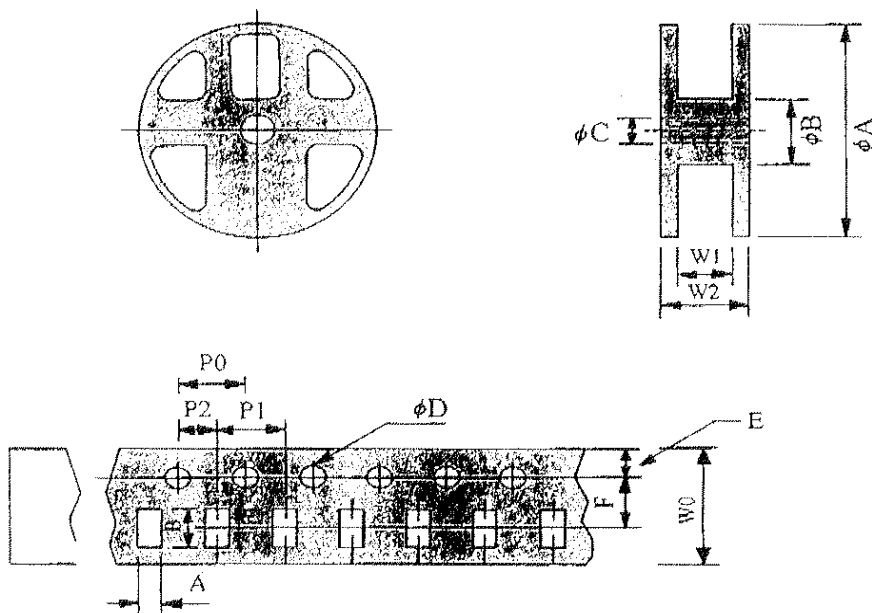
Valid provided that leads at a distance of 8 mm from case are kept at ambient temperature



Relative capacitance
versus reverse voltage



Taping Specifications



Item	Symbol	Specification (mm)	Specification (inch)
Carrier width	A	2.00 ± 0.20	0.079 ± 0.008
Carrier length	B	3.60 ± 0.20	0.142 ± 0.008
Reel outside diameter	ϕA	$\phi 178.00 \pm 2.00$	$\phi 7.008 \pm 0.080$
Reel inner diameter	ϕB	$\phi 80.00 \pm 1.00$	$\phi 3.150 \pm 0.030$
Feed hole diameter	ϕC	$\phi 13.50 \pm 0.50$	$\phi 0.512 \pm 0.020$
Sprocket hole	ϕD	$\phi 1.50 \pm 0.10$	$\phi 0.059 \pm 0.004$
Sprocket hole position	E	1.75 ± 0.10	0.069 ± 0.004
Punch hole position	F	3.50 ± 0.05	0.138 ± 0.002
Sprocket hole pitch	P0	4.00 ± 0.10	0.157 ± 0.004
Punch hole pitch	P1	4.00 ± 0.10	0.157 ± 0.004
Embossment center	P2	2.00 ± 0.05	0.079 ± 0.002
Tape width	W0	8.00 ± 0.30	0.315 ± 0.012
Reel inner width	W1	9.80 ± 1.50	0.386 ± 0.060
Reel outside width	W2	12.50 ± 1.50	0.496 ± 0.060