

## Excellent Integrated System Limited

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[Comchip Technology](#)  
[CDSSC4148N-G](#)

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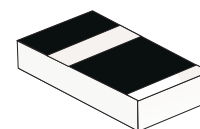
## SMD Switching Diode

# CDSSC4148N-G

Voltage: 75 V

Current: 150mA

RoHS Device

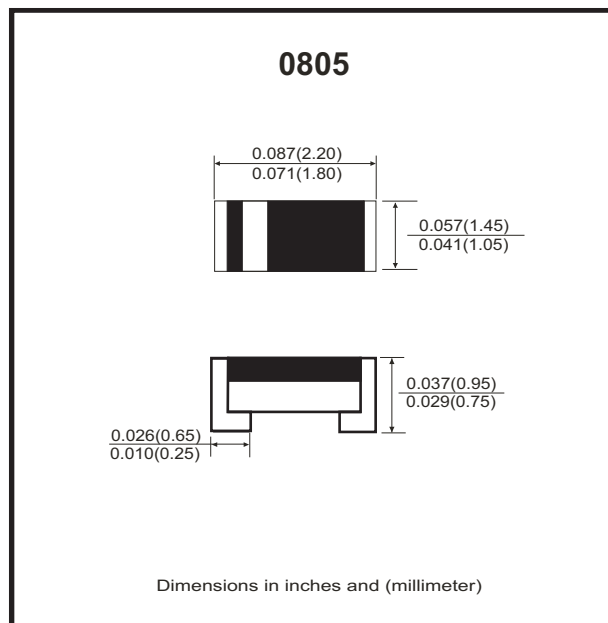


### Features

- Designed for mounting on small surface.
- Silicon Epitaxial Planar Diode.
- Fast switching diode.
- Lead free

### Mechanical data

- Case: 0805
- Marking: Cathode Band.
- Weight: 0.006 gram(approx.).



### Thermal Characteristics (Parameter at Tamb = 25°C )<sup>1)</sup>

Parameter	Symbol	Value	Unit
Forward Power Dissipation Power derating above 25 °C	P <sub>tot</sub>	200	mW
		1.60	mW/°C
Junction Temperature	T <sub>J</sub>	150	°C
Thermal Resistance Junction to Ambient Air	R <sub>θJA</sub>	375	°C/W
Operating & Storage Temperature Range	T <sub>STG</sub>	-55 to +150	°C

### Maximum Rating (Parameter at Tamb = 25°C )<sup>1)</sup>

Parameter	Symbol	Value	Unit
Peperitive Peak Reverse Voltage	V <sub>RMM</sub>	100	V
Average rectified current sin half wave rectification with resistive load	I <sub>F(AV)</sub>	150	mA
Repetitive Peak Forward Current at Tamb=25°C	I <sub>FRM</sub>	300	mA
Non-Repetitive Surge Forward Current at t<1s and Tj=25°C at t≤8.3ms and Tj=25°C	I <sub>FSM</sub>	500	mA
		1000	mA

### Electrical Characteristics (Parameter at Tamb = 25°C )<sup>1)</sup>

Parameter	Symbol	Value	Unit
MAX. Forward Voltage at I <sub>F</sub> =10mA at I <sub>F</sub> =100mA	V <sub>F</sub>	1.0	V
		1.25	V
MAX. Leakage Current at V <sub>R</sub> =20V at V <sub>R</sub> =75V	I <sub>R</sub>	0.025	uA
		5	uA
Capacitance at V <sub>R</sub> =0V,f=1MHz	C <sub>tot</sub>	4	pF
Reverse Recovery Time at I <sub>F</sub> =I <sub>R</sub> =10mA, R <sub>L</sub> =100Ω	T <sub>rr</sub>	4	ns

Notes:

1.) Valid provided that components are kept at ambient temperature.

# SMD Switching Diode



## RATING AND CHARACTERISTIC CURVES (CDSSC4148N-G)

Fig.1 - Forward characteristics

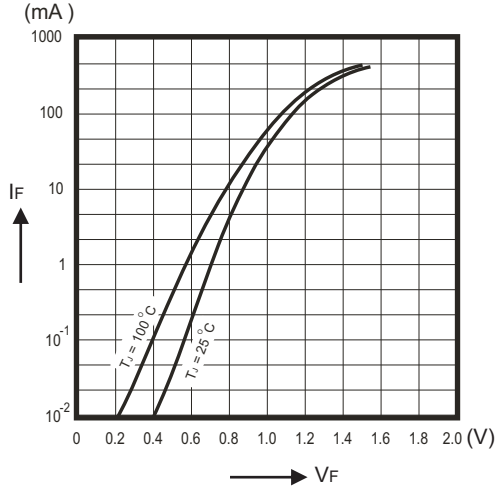


Fig.2 - Power De-rating

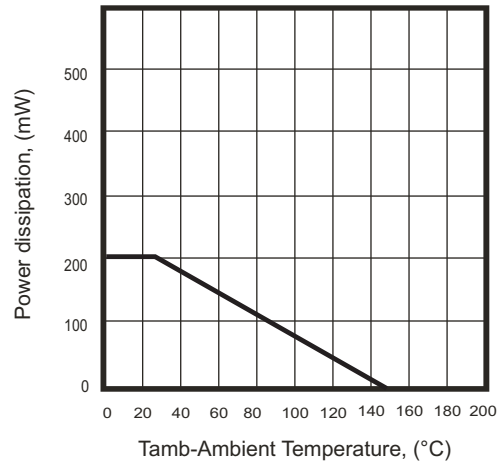


Fig.3 - Forward Current De-rating

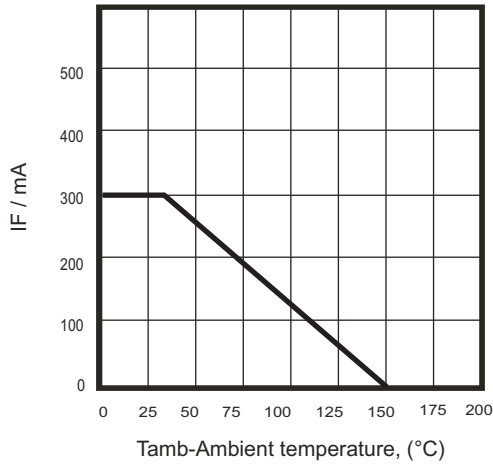
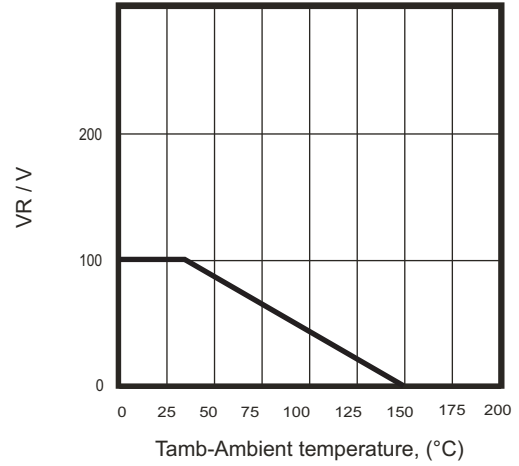


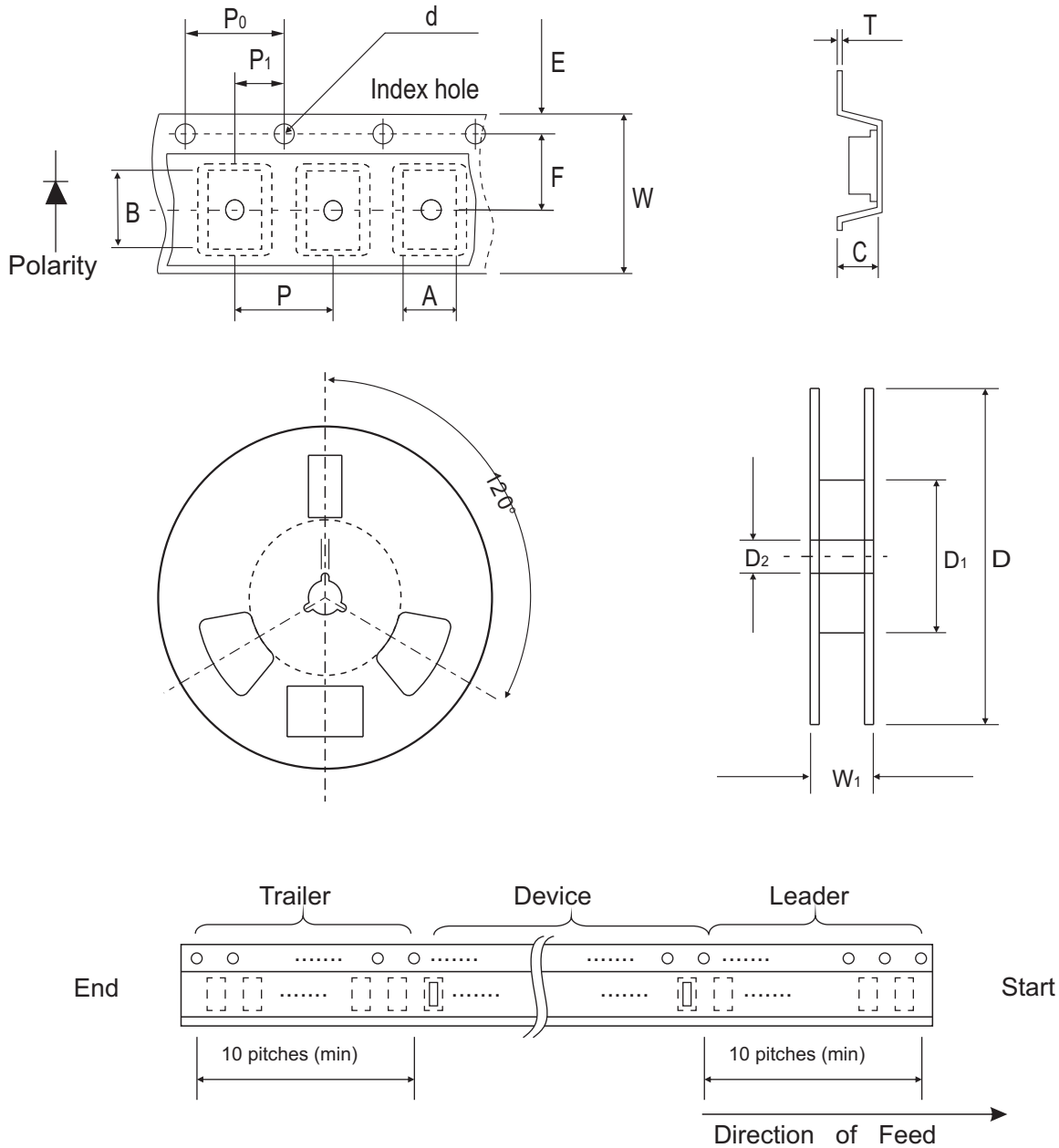
Fig.4 - Relative Voltage De-rating



# SMD Switching Diode



## Reel Taping Specification



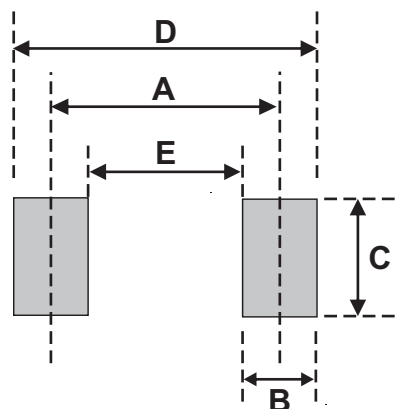
0805	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.65 ± 0.20	2.40 ± 0.20	0.95 ± 0.05	1.50 ± 0.10	178.0 ± 1.00	60.0 ± 1.00	13.0 ± 0.30
	(inch)	0.065 ± 0.008	0.094 ± 0.008	0.037 ± 0.002	0.059 ± 0.004	7.007 ± 0.040	2.362 ± 0.040	0.512 ± 0.012

0805	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.20	9.50 ± 0.30
	(inch)	0.689 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.008	0.374 ± 0.012

## SMD Switching Diode

### Suggested PAD Layout

SIZE	0805	
	(mm)	(inch)
A	1.70-2.10	0.067-0.083
B	0.50-0.90	0.020-0.035
C	1.20-1.40	0.047-0.055
D	2.20-3.00	0.087-0.118
E	1.20	0.047



### Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
0805	5,000	7