

CHT-CALLISTO

DATASHEET

Dual Common Anode Small Signal Diodes

Version: 1.7
14-Dec-23
(Last Modification Date)

General description

CHT-CALLISTO features high temperature dual common anode 80V / 300mA diodes packaged in a hermetically sealed TO18 metal can. It is designed to achieve high performance in an extremely wide temperature range: typical operation temperature goes from -55°C to 225°C while keeping leakage currents low. This dual diode can be used in a variety of applications, including rectification and general purpose.

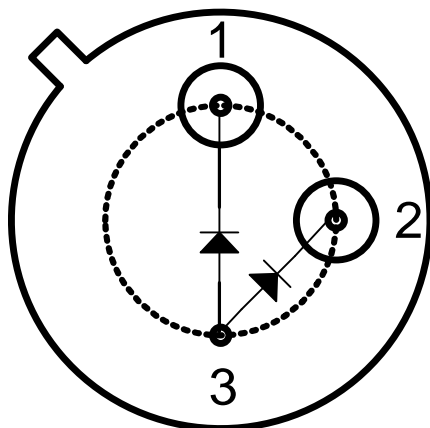
Features

- Specified from -55 to +225°C (Tj)
- Reverse voltage: $V_R = 80V$ (max)
- Forward current: $I_F = 280\text{ mA}$ (max @ 225°C (Tj) and $V_F = 1.5V$)
- Forward voltage:
 $V_F = 0.7V$ (typ. @ $I_F = 1mA$)
- Junction capacitance:
 $C_j = 8.5pF$ (typ. @ $V_R = 25V$)
- Package: Hermetically sealed metal can TO18
- Validated at 225°C for 7000 hours

Applications

- Voltage multiplier / charge-pumps
- Signal rectification
- General purpose diode

Package Configuration



Pin Number	Pin Name
1	K1
2	K2
3	A1

TO18 (bottom view) (case connected to pin 3)

Absolute Maximum Ratings

Reverse voltage V_R	80V
Forward surge current I_{FSM}	300mA
Power dissipation $T_c=25^\circ\text{C}$	450mW
Junction temperature T_j	250°C

Operating Conditions

Reverse voltage V_R	0V to 80V
Continuous forward current I_F	0mA to 250mA
Forward voltage V_F	0V to 1.5V
Power dissipation $T_c=25^\circ\text{C}$	350mW
Junction temperature	-55°C to +225°C

Electrical characteristics

Unless otherwise stated, $T_j = 25^\circ\text{C}$. **Bold** figures point out values valid over the whole temperature range ($T_j = -55^\circ\text{C}$ to $+225^\circ\text{C}$).

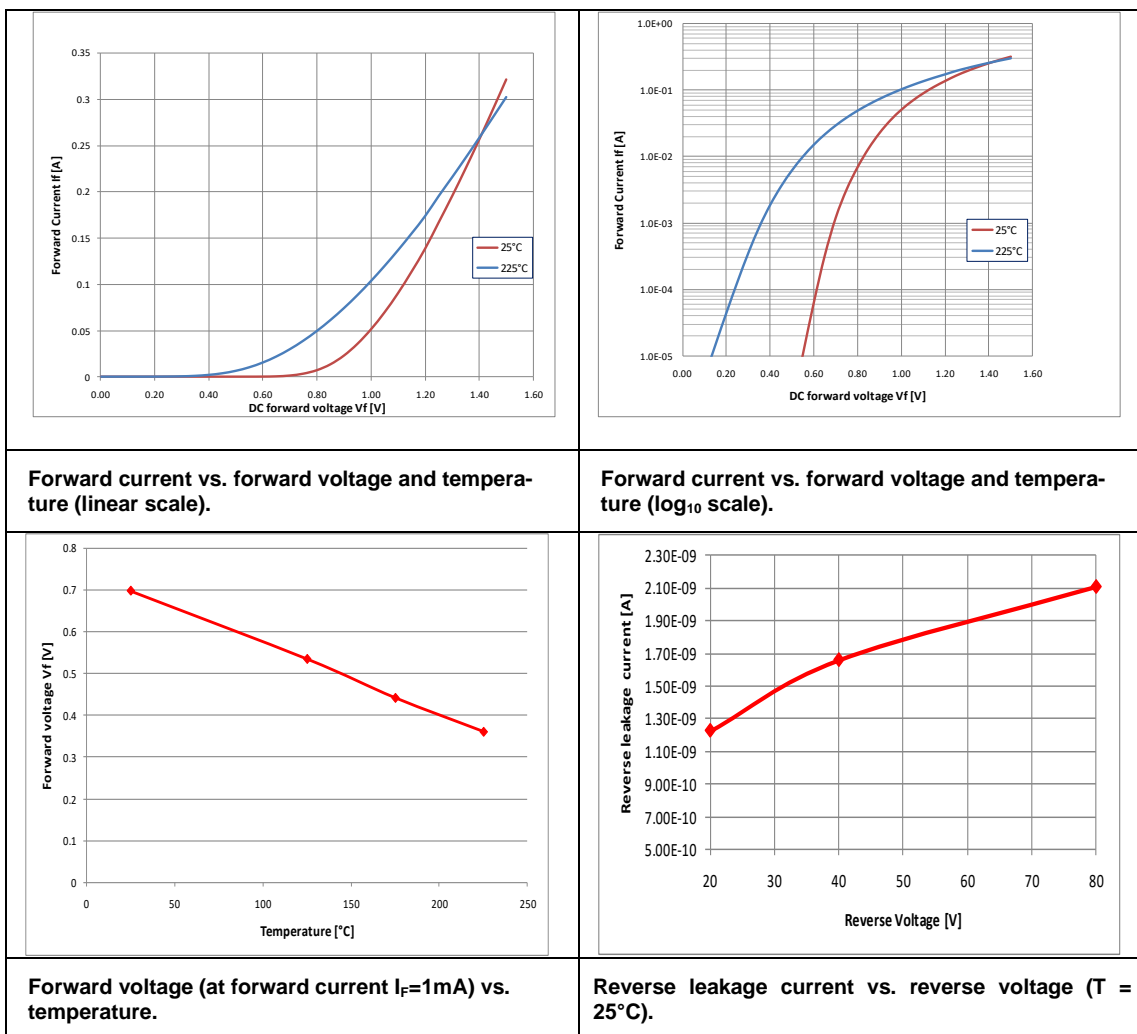
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F=1\text{mA}$, $T_j=25^\circ\text{C}$		0.7		V
Forward current	I_F				280	mA
Reverse leakage current	I_R	$V_R=80\text{V}$, $T_j=25^\circ\text{C}$		2.11		nA
		$V_R=80\text{V}$, $T_j=225^\circ\text{C}$		8.9		uA
Breakdown reverse voltage	$V_{(BR)}$		80			V
Junction capacitance	C_j	$V_R=25\text{V}$		8.5		pF
Reverse recovery time ¹	t_{rr}	$V_R = 80\text{V}$		56		ns
Peak reverse recovery current	I_{rrp}	$I_F = 950\text{mA}$ $T_a = 25^\circ\text{C}$		690		mA

Thermal Characteristics

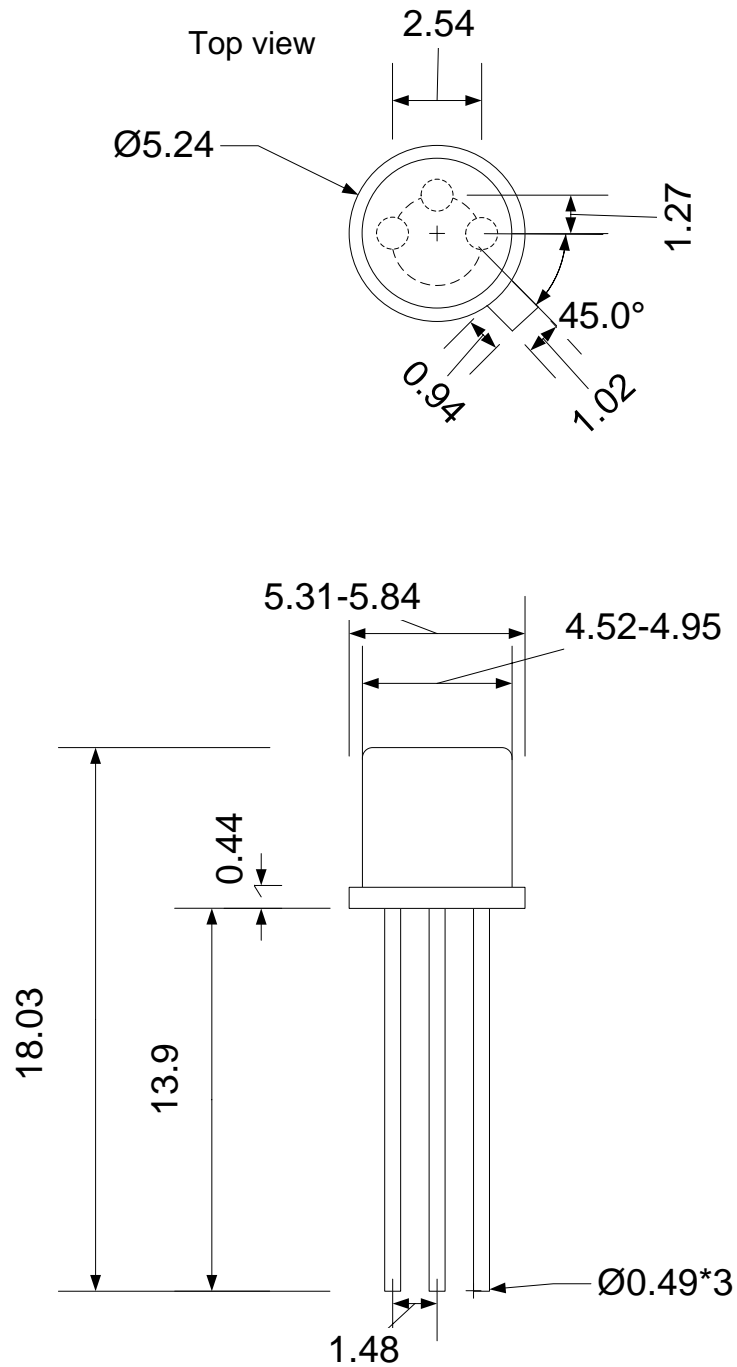
Parameter	Symbol	Condition	Min	Typ	Max	Unit
Junction to case thermal resistance	Θ_{JC}	TO-18 package		60		°C/W

¹ t_{rr} measured between point where current crosses zero and current reaches 10% of peak reverse recovery current

Typical Performance Characteristics (applicable to each diode)



Package Dimensions



Drawing TO18 (mm +/- 10%)

Ordering Information

Product Name	Ordering Reference	Package	Marking
CHT-CALLISTO	CHT-PLA5520A-TO18-T	TO-18	CHT-5520A

Contact & Ordering

CISSOID S.A.

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