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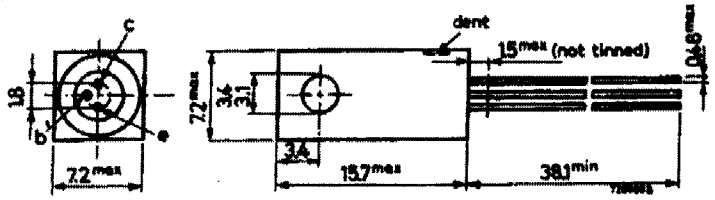
AC187 / AC187K/ AC187/01/ AC188

MECHANICAL DATA (continued) **Dimensions in mm**

AC187/01



The dent indicates the collector

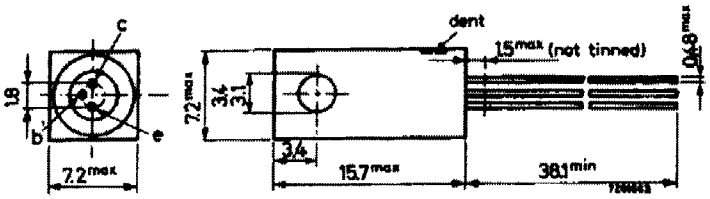
RATINGS Limiting values in accordance with the Absolute Maximum System (IEC 134)

Voltages			
Collector-base voltage (open emitter)	V_{CBO}	max. 25	V
Collector-emitter voltage (open base)	V_{CEO}	max. 15	V
Collector-emitter voltage $I_C \leq 600$ mA; $R_{BE} \leq 1\ \Omega$	V_{CER}	max. 18	V
Emitter-base voltage (open collector)	V_{EBO}	max. 10	V
Currents			
Collector current (d.c. or average over any 50 ms period)	I_C	max. 1	A
Collector current (peak value)	I_{CM}	max. 2	A
Power dissipation			
Total power dissipation up to $T_{amb} = 35\ ^oC$ [1])	P_{tot}	max. 1.0	W
Temperatures			
Storage temperature	T_{stg}	−55 to +75	°C
Junction temperature	T_j	max. 90	°C

MECHANICAL DATA (continued)

AC187/01

Dimensions in mm



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THERMAL RESISTANCE

From junction to ambient in free a

without cooling clip
with cooling clip 56227
with cooling clip 56227 on 1.5 mm blackened Al, heatsink
with cooling clip 56227 on infinit

From junction to case

AC187 with cooling clip 56227 — $R_{th\ j\text{-}c}$ = 40 °C/W

AC187/01 — 45 °C/W

CHARACTERISTICS

Collector cut-off current

$I_E = 0$; $V_{CB} = 25$ V

$I_E = 0$; $V_{CB} = 25$ V; $T_j = 90$ °C

$-V_{BE} = 1.0$ V; $V_{CE} = 25$ V

Emitter cut-off current

$I_C = 0$; $V_{EB} = 10$ V

$I_C = 0$; $V_{EB} = 10$ V; $T_j = 90$ °C

Base-emitter voltage

$I_C = 5$ mA; $V_{CE} = 10$ V

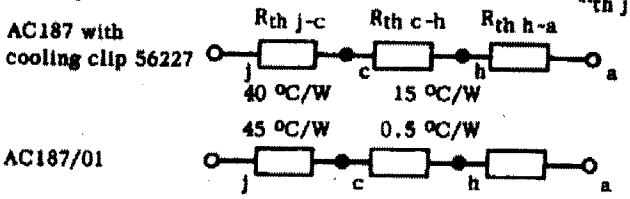
$I_C = 300$ mA; $V_{CE} = 1$ V

Emitter-base floating voltage

$I_E = 0$; $V_{CB} = 25$ V; $T_j = 90$ °C

THERMAL RESISTANCE

From junction to ambient in free air		AC187	AC187/01	
without cooling clip	$R_{th\ j-a}$ =	290	180	°C/W
with cooling clip 56227	$R_{th\ j-a}$ =	140		°C/W
with cooling clip 56227 on 1.5mm blackened Al. heatsink of 12.5 cm^2	$R_{th\ j-a}$ =	80	70.5	°C/W
with cooling clip 56227 on infinite heatsink	$R_{th\ j-a}$ =	55		°C/W
From junction to case	$R_{th\ j-c}$ =	40	45	°C/W



CHARACTERISTICS

T_j = 25 °C unless otherwise specified

Collector cut-off current				
I_E = 0; V_{CB} = 25 V	I_{CBO}	typ.	15	μA
		<	100	μA
I_E = 0; V_{CB} = 25 V; T_j = 90 °C	I_{CBO}	<	2.5	mA
$-V_{BE}$ = 1.0 V; V_{CE} = 25 V	I_{CEX}	<	100	μA
Emitter cut-off current				
I_C = 0; V_{EB} = 10 V	I_{EBO}	typ.	15	μA
		<	100	μA
I_C = 0; V_{EB} = 10 V; T_j = 90 °C	I_{EBO}	typ.	1.2	mA
		<	2.5	mA
Base-emitter voltage				
I_C = 5 mA; V_{CE} = 10 V	V_{BE}	95 to 135		mV
I_C = 300 mA; V_{CE} = 1 V	V_{BE}	<	550	mV
Emitter-base floating voltage				
I_E = 0; V_{CB} = 25 V; T_j = 90 °C	V_{EBfl}	<	400	mV