COMSET SEMICONDUCTORS

MF35-1600R

FAST RECOVERY DIODE

Features

- Fast recovery diode
- Short reverse recovery time
- Wide current range
- Stud anode version
- Available in metric and UNF thread
- DO-5 – 1/4" 28UNF-2A
- Compliance to RoHS

Typical applications

- Low stored charges
- Power supplies
- High frequency Applications

ELECTRICAL SPECIFICATIONS (T_e = 25°C)

Symbol	Ratings		Value	Unit
V_{RRM}	Repetitive peak reverse blocking voltage	T_j =- 20 to +125 °c	≥ 1600	V
V_{RSM}	Non-repetitive peak voltage		≥ 1600	V
$I_{F(AV)}$	average forward current	T_C = 65 °C	≥ 28	A

THERMAL CHARACTERISTICS

Symbol	Ratings	Value	Unit
R_{thcs}	Maximum thermal resistance, case to heatsink	≤ 0.2	°C/W
R_{thJC}	Maximum thermal resistance, junction to case	≤ 1.2	°C/W
T_J	Operating junction temperature range	-20 to 125	°C
F	Maximum mounting torque	4	mN

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ELECTRICAL CHARACTERISTICS

TE=25°C unless otherwise noted

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
V_{RRM}	Repetitive peak reverse blocking voltage	T_j = -20°C to +125°C	1600	-	-	V
V_{RSM}	Non-repetitive peak voltage		1600	-	-	V
I_{RRM}	Reverse leakage current	V_{RRM}= 1400 V T_j = 125 °C	-	-	5	mA
$I_{F(AV)}$	average forward current	T_C = 65 °C	28	-	-	A
$I_{F(RMS)}$	RMS forward current		40	-	-	A
I_{FSM}	Single cycle surge current	T_C = 125 °C	400	-	-	A
V_t	Forward voltage drop	at 120 A T_j = 25 °C	-	-	2.2	V
I^2t	I^2t for fusing	T_j = 125 °C	800	-	-	A^2sec

SWITCHING

Symbol	Ratings	Test Condition(s)	Min	Typ	Max	Unit
t_{rr}	Maximum recovery time	I_F= 1 A, di/dt = -25 A/µsec	-	-	0.3	µsec
I_{rr}	Reverse recovery current	T_j = -25°C to +125°C	-	-	52	A
Q_r	Recovered charge	I_F= 50 A, V_R= 100 V di/dt = 50 A/µsec T_C = -25°C	-	-	10	µC

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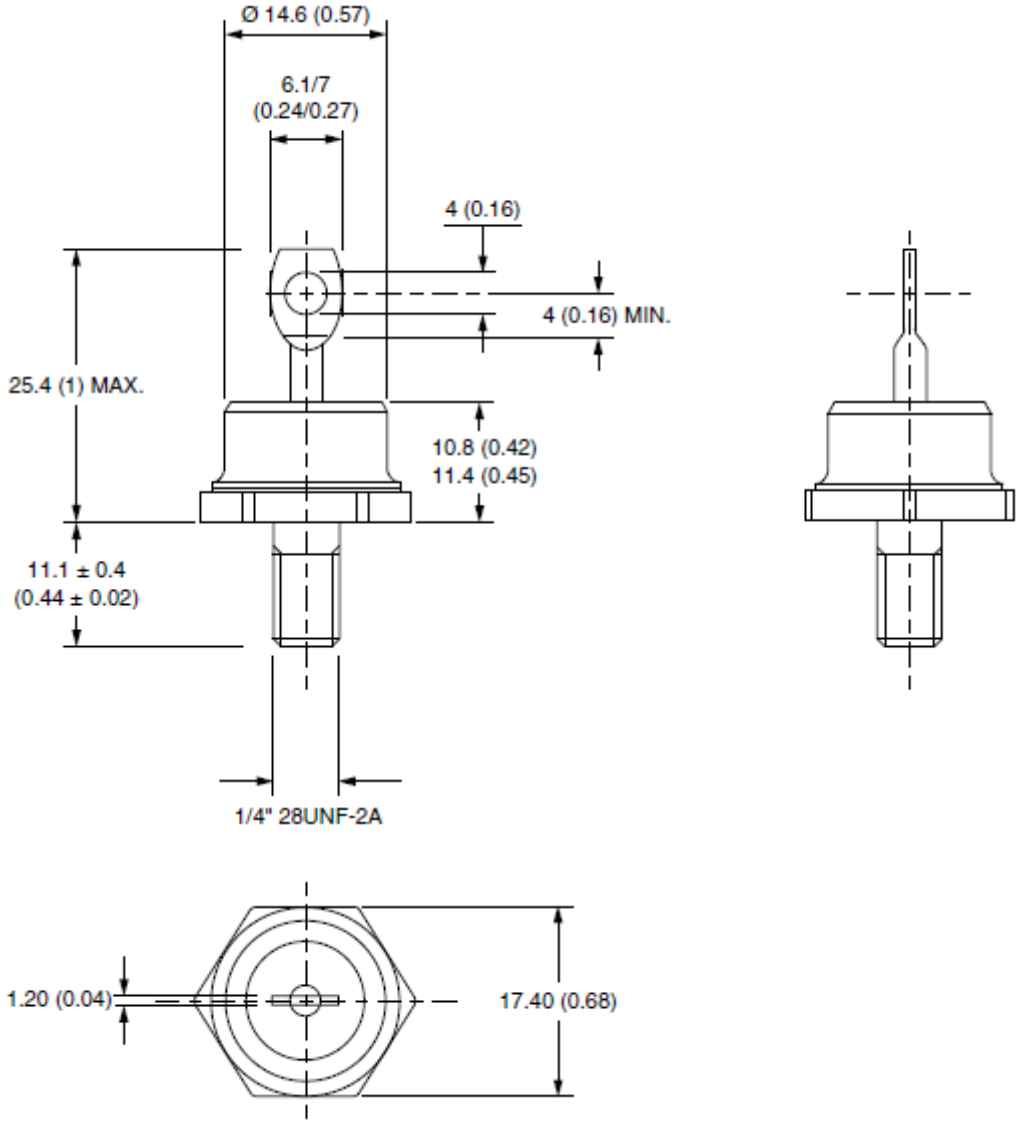
MECHANICAL DATA CASE DO-5 in millimeters (inches)



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