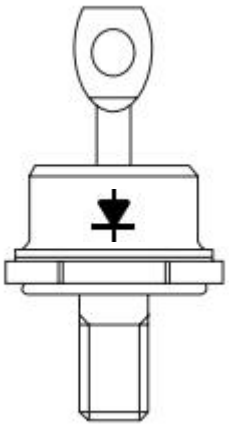
70HFL80S05

FAST RECOVERY DIODES

FEATURES

- Shortreverse recovery time
- Low stored charge
- Wide currentrange
- Excellent surge capabilities
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



Case Style DO-5

stud normal polarity (cathode to stud)

APPLICATIONS

- This range of fast recovery diodes is designed for applications in DC power supplies, inverters, converters, choppers, ultrasonic systems and for use as a free wheeling diode

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	CONDITIONS		VALUE	UNIT
V_{RRM}	Repetitive Peak Reverse Voltage			800	V
$I_{F(AV)}$	Average Forward Current	T_C=75℃, 180° conduction, half sine wave		70	A
$IF_{(RMS)}$	Max. RMS forward current			110	A
I_{FSM}	Surge Forward Current	t=10ms	No voltage reapplied	700	A
		t=8.3ms		730	
		t=10ms	100%V_{RRM} reapplied	830	
		t=8.3ms		870	
I^2t	I^2t for fusing	t=10ms	No voltage reapplied	2450	A^2s
		t=8.3ms		2240	
		t=10ms	100%V_{RRM} reapplied	3460	
		t=8.3ms		3160	
T_J	Junction Temperature			-40~125	℃
T_{stg}	Storage Temperature			-40~150	℃

THERMAL CHARACTERISTICS

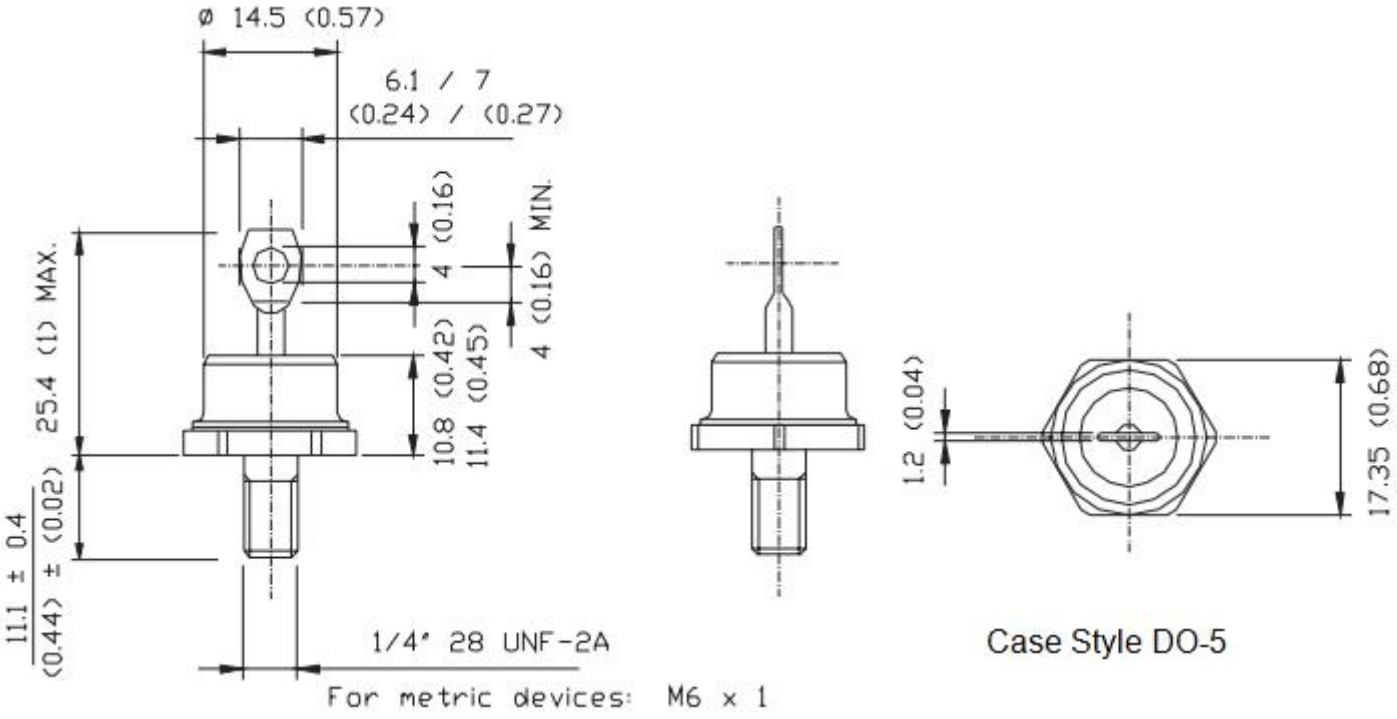
SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	0.36	K/W

ELECTRICAL CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
V_{FM}	Forward Voltage drop	T_J = 25℃, I_{FM} = π x $I_{F(AV)}$	1.85	V
I_R	Maximum Instantaneous Reverse Current	V_R= 800V@T_J = 25 °C	100	μA
trr	Typical reverse recovery time	T_J = 25℃, I_F = 1 A to V_R = 30 V, $d_{IF/dt}$ = 100 A/μs	150	ns
		T_J = 25℃, - $d_{IF/dt}$ = 25 A/μs, I_{FM} = π x rated $I_{F(AV)}$	500	
Qrr	Typical reverse recovered charge	T_J = 25℃, I_F = 1 A to V_R = 30 V, $d_{IF/dt}$ = 100 A/μs	500	nC
		T_J = 25℃, - $d_{IF/dt}$ = 25 A/μs, I_{FM} = π x rated $I_{F(AV)}$	1300	

PACKAGE OUTLINE

Dimensions in mm (1mm = 0.0394“)



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