UFF20005CT THUR UFF2008CT

SUPER FAST GLASS PASSIVATED RECTIFIERS

ITO-220AB

FEATURES:

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ideally suited for free wheeling diode power factor correction applications
- Excellent high temperature switching
- Optimized to reduce switchinh losses
- High temperature soldering guaranteed: 250℃/10 seconds, 0.25"(6.35mm) from case

MECHANICAL DATA

Case : JEDEC ITO-220AB molded plastic
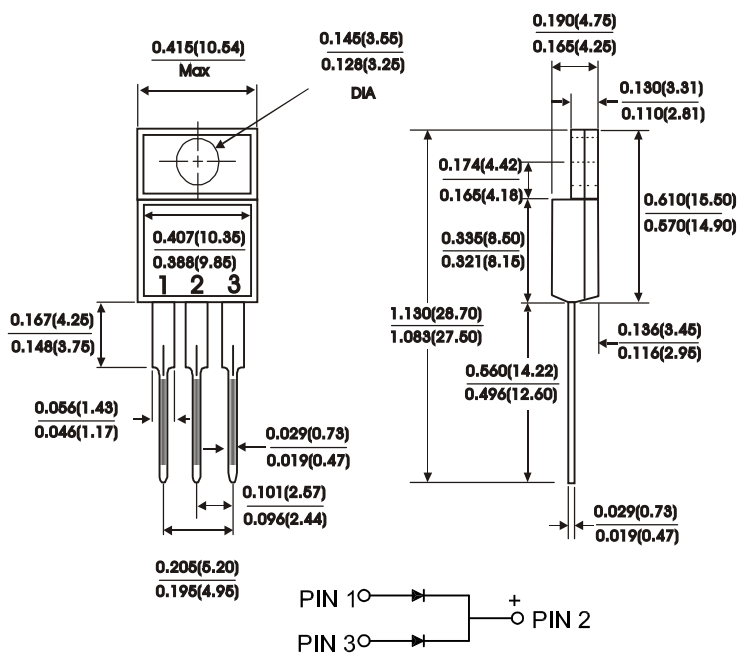Teminals : Leads solderable per MIL-STD-750
Method 2026
Polarity : As marked
Mounting Postition : Any
Mounting Torque 5 in - lbs.max
Weight : 0.08 ounce, 2.24 grams

PIN 1 ◦—▷|—
PIN 3 ◦—▷|— ◦ PIN 2 +

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 ℃ ambient temperature unless otherwise specified.
Single phase half wave, 60 Hz resistive or inductive load.
For capacitive load. derate current by 20%.

Characteristic	Symbol	UFF 20005CT	UFF 2001CT	UFF 2002CT	UFF 2003CT	UFF 2004CT	UFF 2006CT	UFF 2008CT	Units
Maximum recurrent peak reverse voltage	V_{RRM}	50	100	200	300	400	600	800	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	210	280	280	560	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	300	400	600	800	Volts
Maximum average forward rectified current at Tc=100℃	$I_{(AV)}$	20.0							Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)(Per leg)	I_{FSM}	150							Amps
Maximum instantaneous forward voltage (Per leg) IF=10A	V_F	1.0				1.30		1.70	Volts
Maximum DC reverse current at rated DC blocking voltage (Per leg) Tc=25℃ Tc=125℃	I_R	10.0 500.0							μA
Typical reverse recovery time (Per leg)(NOTE 1)	T_{RR}	50			75			100	nS
Typical junction capacition(Per leg)(NOTE 2)	C_J	50							P_F
Operating temperature range	T_J	-55to+150							℃
Storage temperature range	T_{Stg}	-55to+150							℃

NOTES:
(1)Reverse Recovery Test CONDITION : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A
(2)Measured at 1MHZ and reverse Voltage of 4.0V
(3)Marking : UFF20005CT = UFF20005 (Without Marking "CT")
                Symbol   Marking

DACO SEMICONDUCTOR

FIG.1 - TYPICAL FORWARD CORRENT DERATING CURVE

AVERAGE FORWARD CURRENT, (A)

CASE TEMPERATURE.(°C)

FIG.2 - TYPICAL FORWARD CHARACTERISTICS

INSTANTANEOUS FORWARD CURRENT.(A)

50V-200V

300V-400V

600V-800V

$T_J=25°C$
Pulse Width 300 μ s
1% Duty Cycle

FORWARD VOLTAGE. (V)

FIG.3 - MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

PEAK FORWARD SURGE CORRENT, (A)

8.3ms Single Half
Sine Wave
JEDEC method

$T_J=25°C$

NUMBER OF CYCLES AT 60Hz

Figure 6 GR1 Test Circuit

30us

20us

450us

TRR TEST

4.55ms

30Ω   20Ω   D.U.T

40Ω

50Ω

10Ω

40V   50V

BNC

50Ω

TO SCOPE

FIG.4- TYPICAL JUNCTION CAPACITANCE

JUNCTION CAPACITANCE,(pF)

$T_J = 25°C$
$F = 1.0MHZ$
$Vsig=50mVp-p$

50V-400V
600V-800V

REVERSE VOLTAGE.(V)

FIG.5- TYPICAL REVERSE CHARACTERISTICS

REVERSE LEAKAGE CURRENT,(μA)

$T_J=125°C$

$T_J=25°C$

PERCENT OF RATED PEAK REVERSE VOLTAGE,(%)

IF=+0.5A

90%IF

Trr

Ir= - 1A

90%IR

Tf<12ns

DACO
SEMICONDUCTOR