CMPFCD86
PFC Diode (8A/600V)

FEATURES

- Fast switching for high efficiency
- Low noise
- Trr = 20ns
- Low reverse leakage current
- High voltage super FRD
- PFC application

MECHANICAL DATA

- Case : Molded plastic TO-220AC / TO-220FP
- Epoxy : UL94V-0 rate flame retardant
- Terminals : Solder able per MIL-STD-202 method 208
- Mounting position : Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

Symbol	Characteristics	CMPFCD86	Unit
		Rating	
V_{RRM}	Recurrent Peak Reverse Voltage	600	V
V_{RMS}	RMS Voltage	420	V
V_{DC}	DC Blocking Voltage	600	V
$IF_{(AV)}$	Average Forward Rectified Current @Tc=140℃	8.0	A
I_{FSM}	Peak Forward Surge Current 8.3ms single half sine-wave Super imposed on rated load (JEDEC Method)	100	A
I_{FSM}	Peak Forward Surge Current 1.0ms single Square-wave superimposed on rated load (JEDEC Method)	150	A
V_F	Instantaneous Forward Voltage @8A	2.9	V
I_R	DC Reverse Current @T_J=25℃	10	uA
	At Rated DC Blocking Voltage @T_J=150℃	500	
Trr	Maximum Reverse Recovery Time (note1)	20	nS
C_J	Typical Junction Capacitance (note2)	50	pF
$R_{\theta JC}$	Typical Thermal Resistance (note3)	2.2	℃/ W
I^2t	I^2t Value For Fusing Tp=10ms	91	A^2s
T_J	Operating Temperature Range	-65~175	℃
T_{STG}	Storage Temperature Range	-65~175	℃

Notes : 1. Reverse recovery test conditions I_F=0.5A , I_R=1.0A , Irr=0.25A
2. Measured at 1.0MHz and applied reverse voltage of 4.0 Volts DC.
3. Thermal Resistance junction to case.

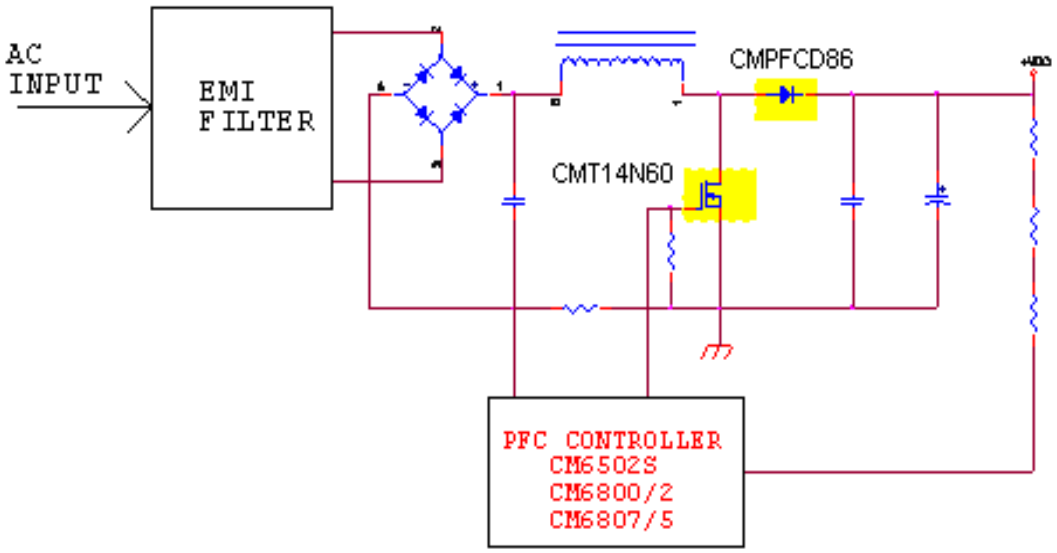
ORDERING INFORMATION

Part Number	Temperature Range	Package
CMPFCD86GN220*	-65℃ to 175℃	TO-220AC (Pb Free)
CMPFCD86XN220*	-65℃ to 175℃	TO-220AC (HF)
CMPFCD86GN220FP*	-65℃ to 175℃	TO-220FP

*Note : G : Suffix for Pb Free Product

X : Suffix for Halogen Free

Application Circuit



TYPICAL CHARACTERISTICS

FIG.1 - FORWARD CURRENT DERATING CURVE

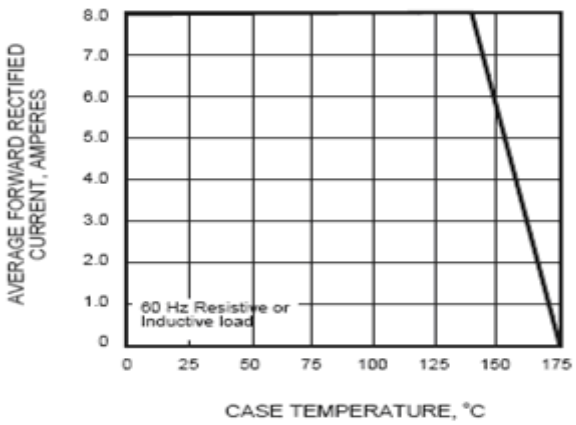


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

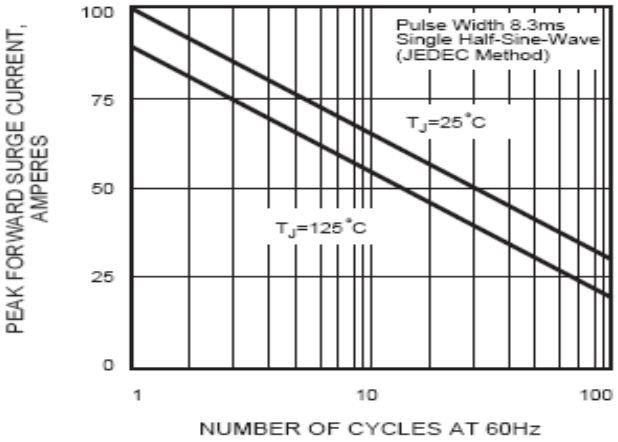


FIG.3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

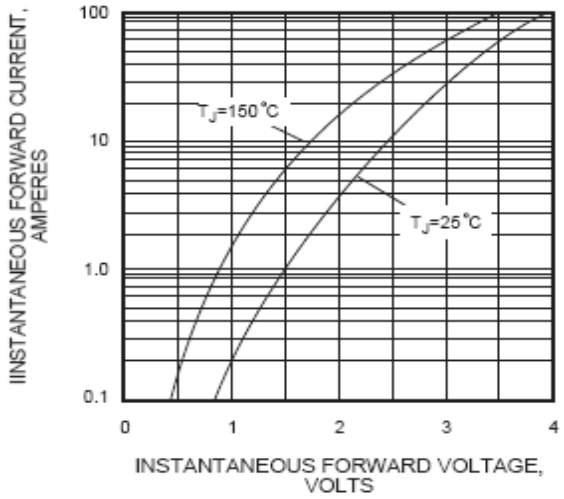


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

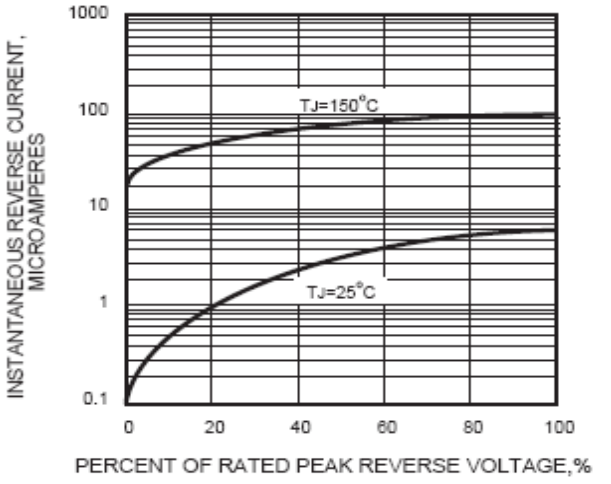


FIG.5 - TYPICAL JUNCTION CAPACITANCE

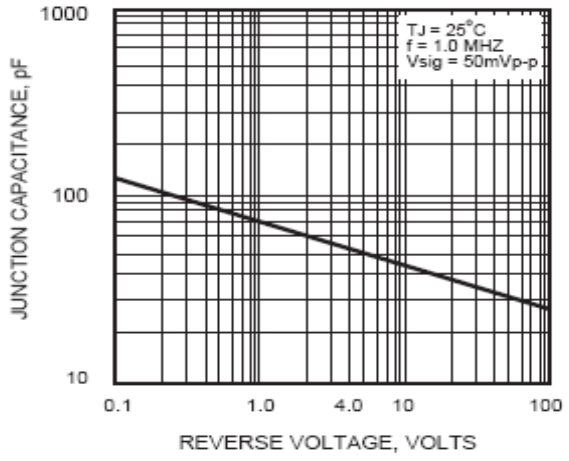
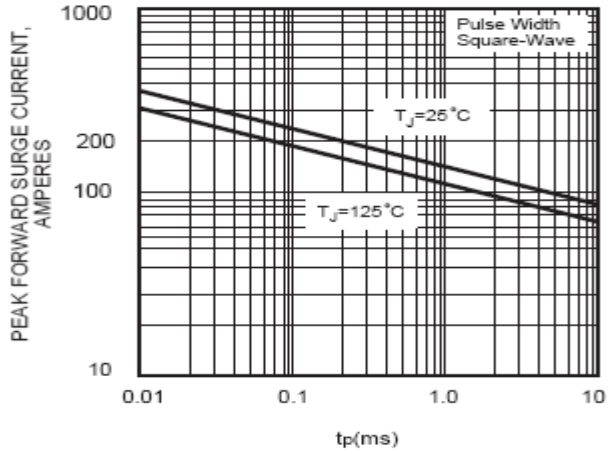


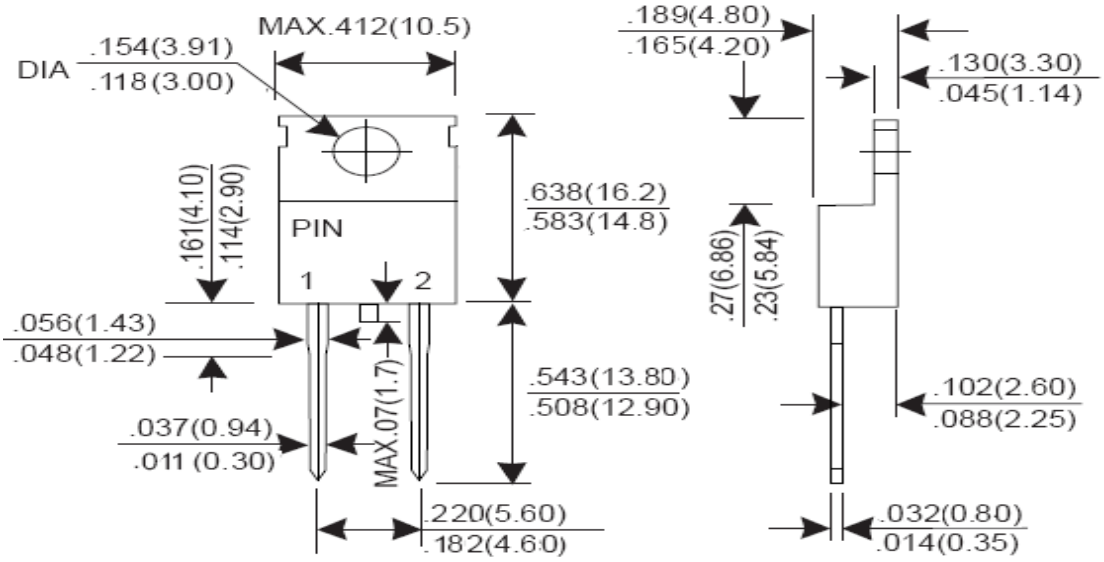
FIG.6 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT



PACKAGE DIMENSION

TO-220AC

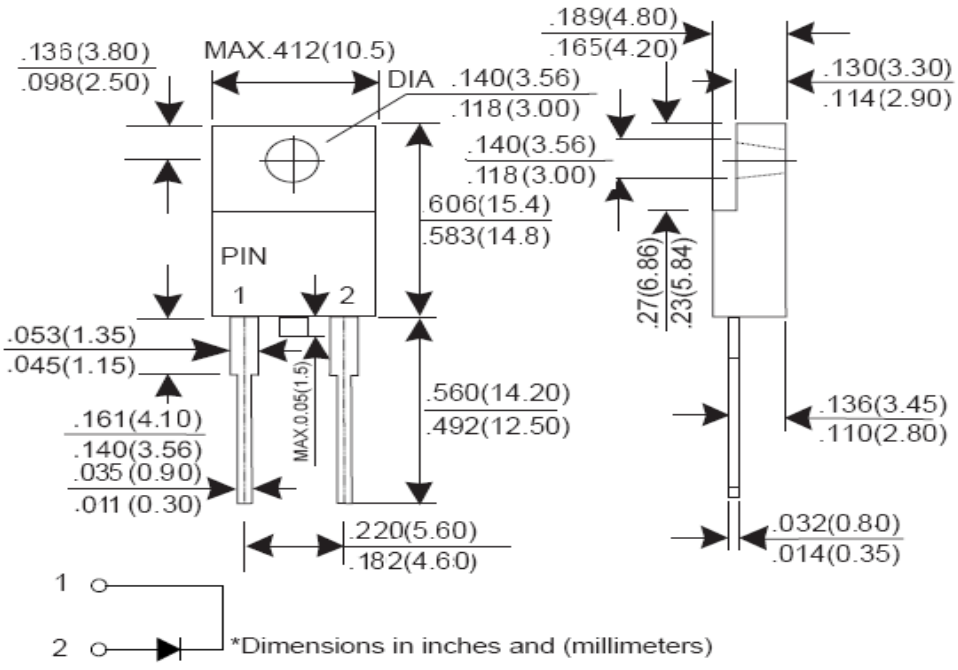
Dimensions in inches and (millimeters)



*Dimensions in inches and (millimeters)

TO-220FP

Dimensions in inches and (millimeters)



*Dimensions in inches and (millimeters)

IMPORTANT NOTICE

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