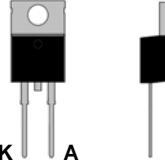


FEATURES

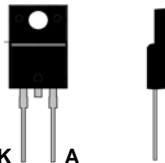
- ◆ Fast switching for high efficiency
- ◆ Low noise
- ◆ $T_{rr} \sim 20ns$
- ◆ Ultra low reverse leakage current
- ◆ High voltage ultra faster diode PFC application
- ◆ High inrush current

MECHANICAL DATA

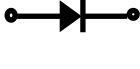
- ◆ Case : Molded plastic TO-220AC / TO-220FPAC
- ◆ Epoxy : UL94V-0 rate flame retardant
- ◆ Terminals : Solder able per MIL-STD-202 method 208
- ◆ 265°C Max. for 10 Seconds
- ◆ Maximum Mounting Torque 6 (5) Kg-cm(lbf-in)



CMD15R06 (TO-220AC)



CMD15R06 (TO-220FPAC)



A K

Primary Characteristics

$I_{F(AV)}$	15A
V_{RM}	600 V
I_{RP}	6.5A
V_F	2.3V
I_R	10 μA
T_j	150 °C

ORDERING INFORMATION

Part Number	Temperature Range	Package
CMD15R06D*	-55°C to 150°C	TO-220AC
CMD15R06FP*	-55°C to 150°C	TO-220FPAC

*Note :

D* TO-220AC

FP*:TO-220FPAC

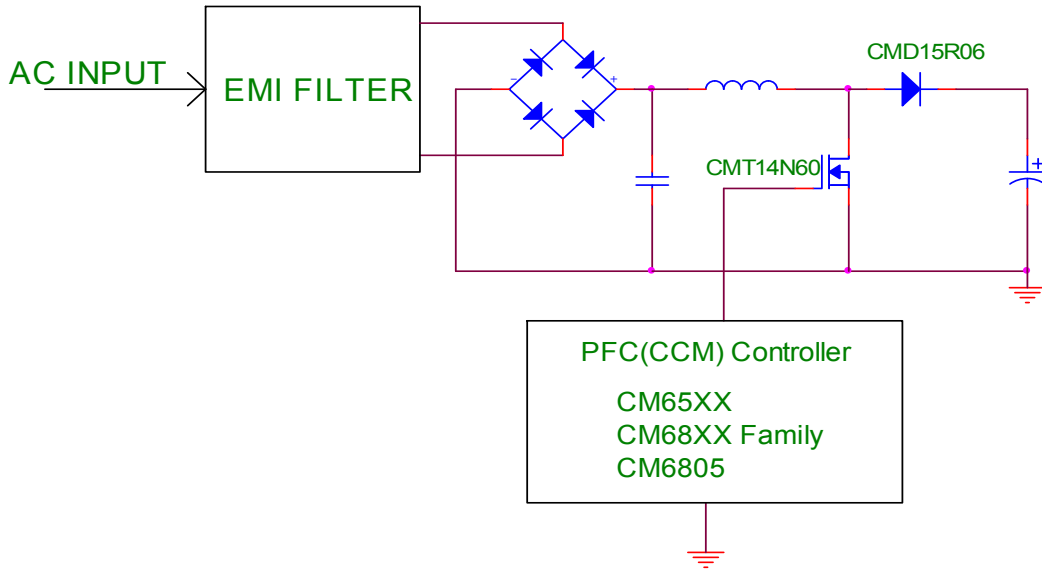
ABSOLUTE MAXIMUM RATINGS (Ta = 25°C)

Symbol	Parameter	Conditions	Limits	Unit
V _{RM}	Repetitive peak reverse voltage	Duty ≤ 0.5	600	V
V _R	Reverse voltage	Direct reverse voltage	600	V
I _F	Average current	60Hz half sin wave, resistive load	15	A
I _{FSM}	Non-repetitive forward surge current	60Hz half sin wave, one cycle, non-repetitive at T _j =25°C	150	A
T _J	Operating junction temperature		150	°C
T _{STG}	Storage temperature		-55~+150	°C

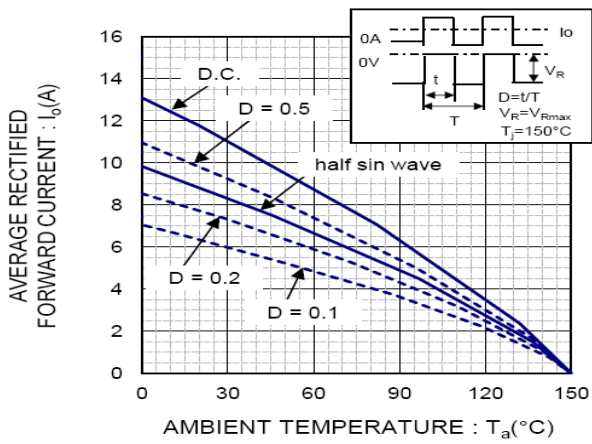
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

Symbol	Parameter	Conditions		Min.	Typ.	Max.	Unit
V _F	Forward voltage	I _F =15A	T _j =25°C	1.6	2.3	2.8	V
			T _j =125°C		1.55		V
I _R	Reverse current	V _R =600V	T _j =25°C		0.03	10	uA
			T _j =125°C		10	200	uA
T _{rr}	Reverse recovery time	I _F =0.5A, I _R =1A, I _{RR} =0.25x I _R			20	30	nS
		I _F =15A, V _R =400V, DI _F /dt=-200A/us			30	50	nS
I _{RP}	Reverse recovery current	I _F =15A, V _R =400V, DI _F /dt=-200A/us	T _j =125°C		6.5		A
Q _{RR}	Reverse recovery charges				200		nC
T _{fr}	Forward recovery time	I _F =15A, DI _F /dt=-200A/us, V _{FR} =1.1x V _{Fmax}			150		nS
V _{FP}	Forward recovery voltage				5.5		V
R _{th} (j-a)	Thermal resistance	Junction to ambient	TO-220AC			2.0	°C/W
			TO-220FPAC			6.5	
R _{th} (j-c)	Thermal resistance	Junction to case	TO-220AC			1.2	°C/W
			TO-220FPAC			2.8	

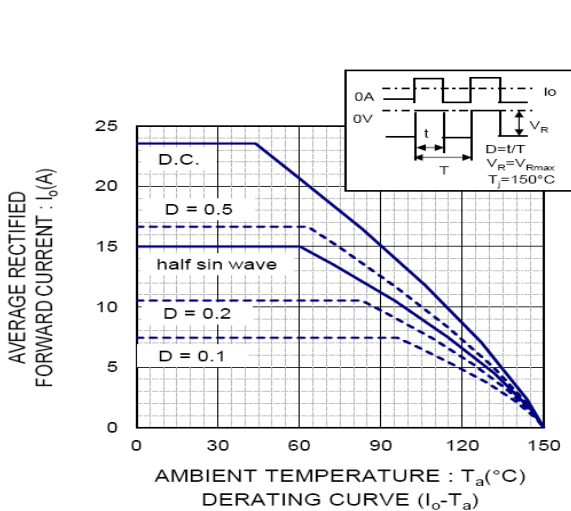
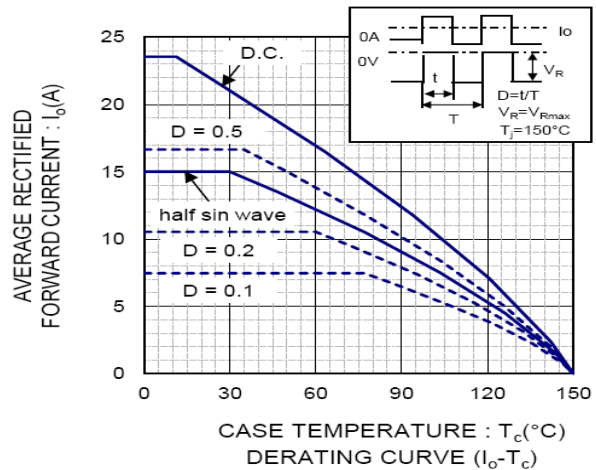
APPLICATION CIRCUIT



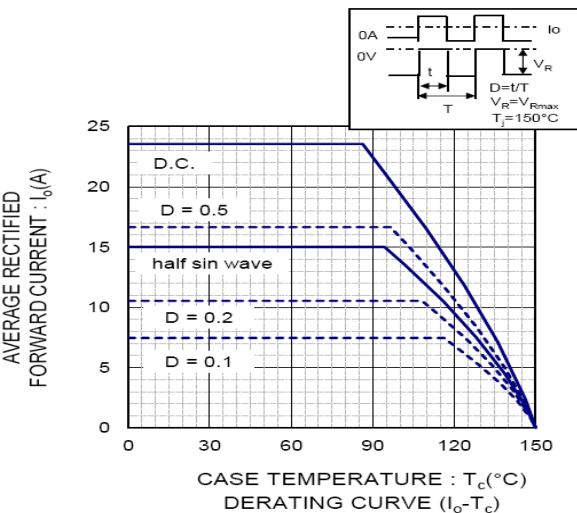
TYPICAL CHARACTERISTICS

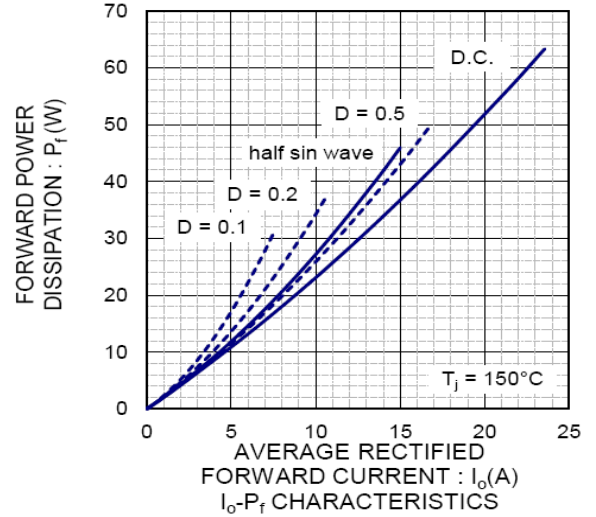
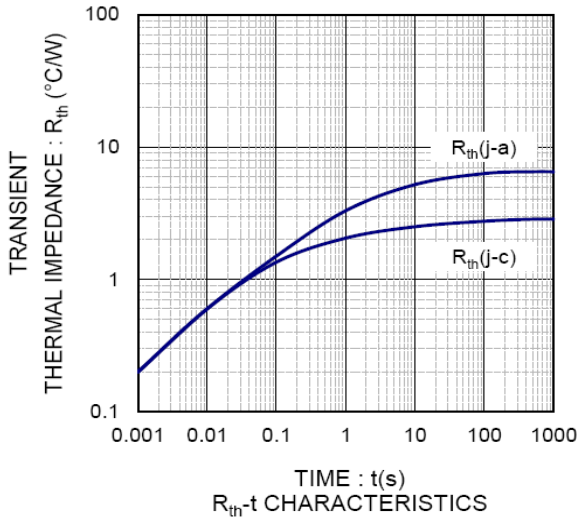


(TO-220FPAC)

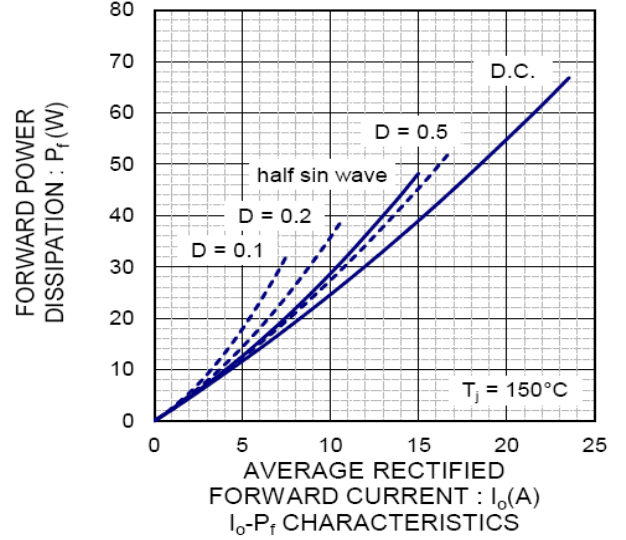
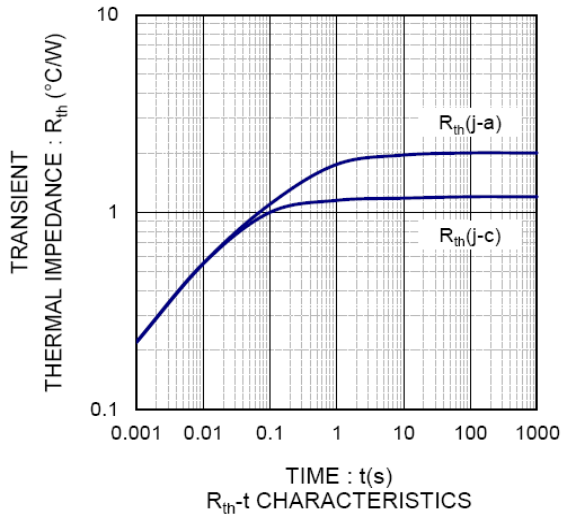


(TO-220AC)



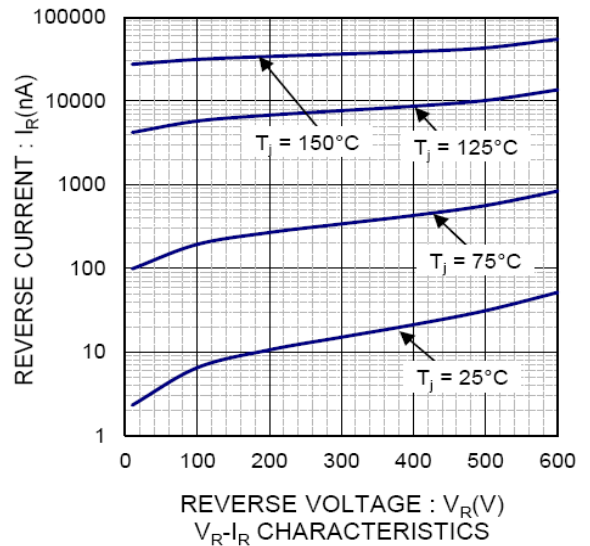
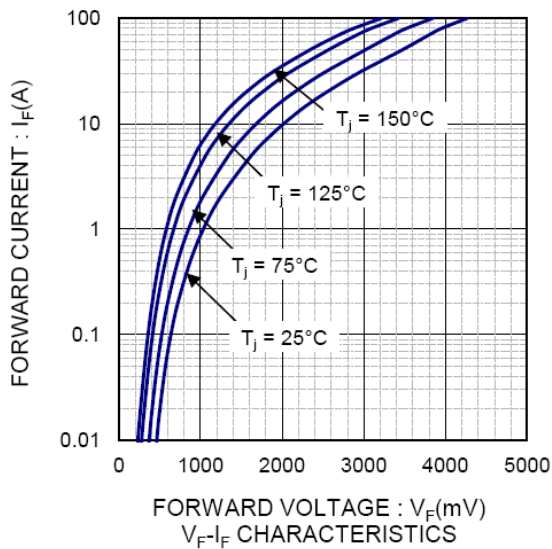


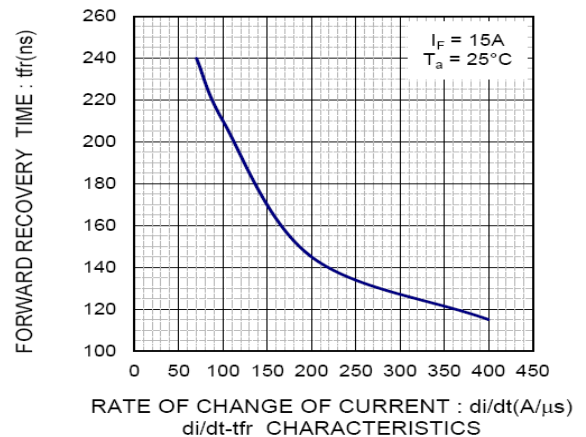
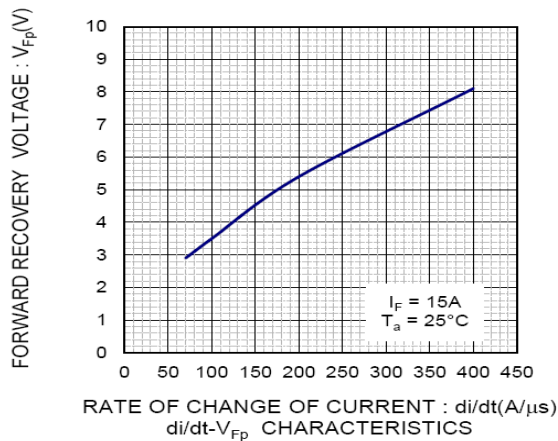
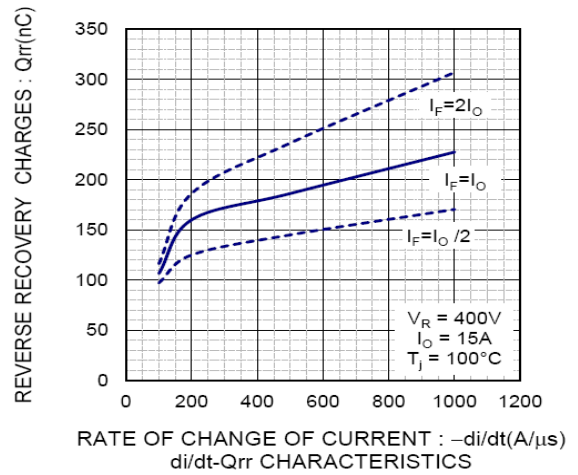
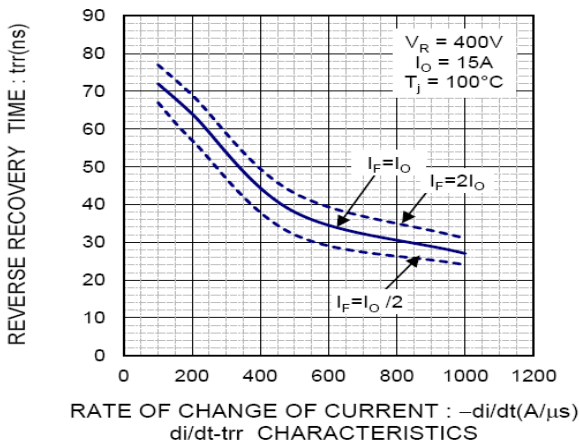
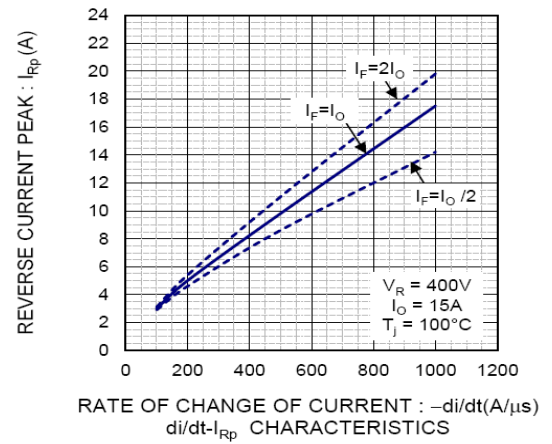
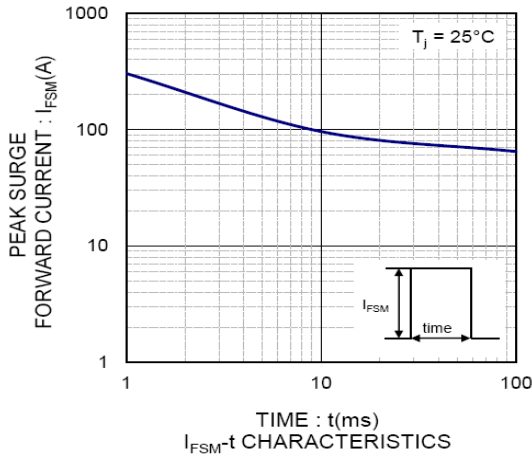
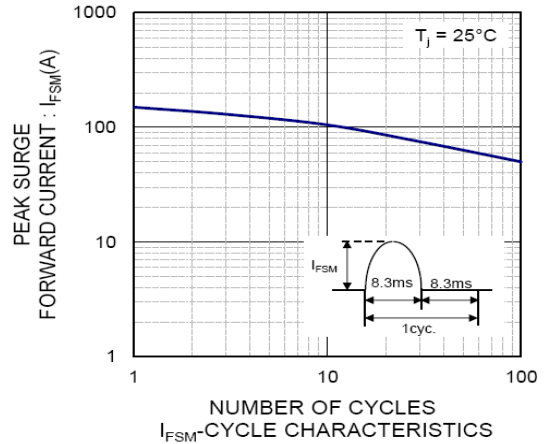
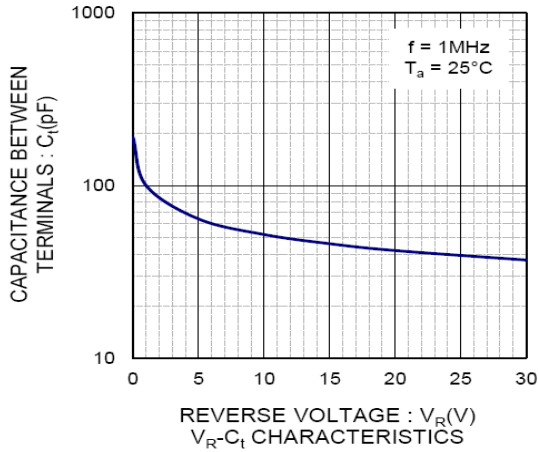
(TO-220FPAC)

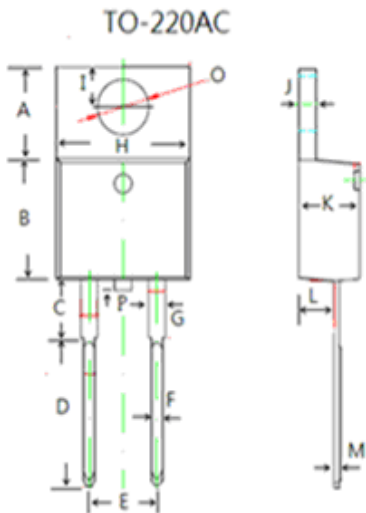


(TO-220AC)

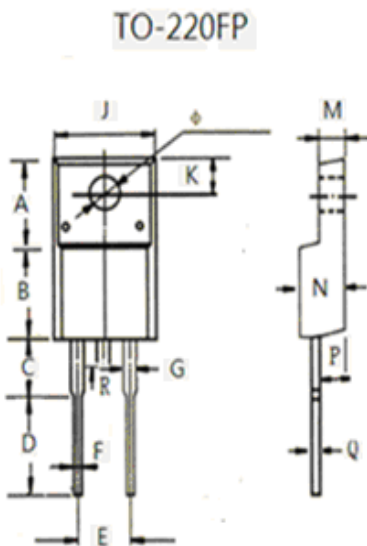
TO-220FPAC & TO-220AC





PACKAGE DIMENSION
TO-220AC


Dimension	Millimeters		Dimension	Millimeters	
	Min.	Max.		Min.	Max.
A	6.17	7.00	H	9.80	10.50
B	8.50	9.45	I	2.59	2.95
C	2.56	4.43	J	1.14	1.40
D	8.98	10.80	K	4.20	4.80
E	4.60	5.60	L	2.20	2.82
F	0.70	0.91	M	0.28	0.60
G	1.17	1.55	O	3.56	3.94
			P		1.00

TO-220FPAC


Dimension	Millimeters		Dimension	Millimeters	
	Min.	Max.		Min.	Max.
A	5.84	6.98	J	9.90	10.50
B	8.05	9.97	K	2.50	3.80
C	2.79	4.10	M	2.34	3.30
D	8.94	10.65	N	4.20	4.90
E	4.60	5.60	O	2.08	3.56
F	0.30	0.90	P	2.45	2.92
G	1.08	1.48	Q	0.35	0.80
			R		1.00

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