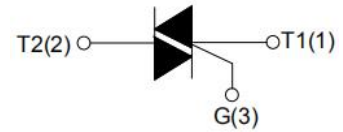


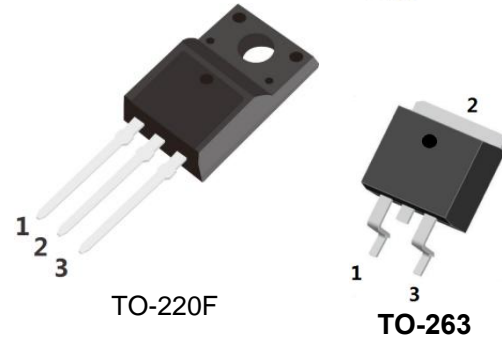
•Package

TO-220F TO-263



•Main Feature (Tj=25°C)

Symbol	Value	Unit
$I_{T(RMS)}$	16	A
V_{DRM} / V_{RRM}	≥ 800	V
I_{TSM}	160	A



•Absolute ratings (Limiting Values)

Symbol	Parameter	Value	Unit	
$I_{T(RMS)}$	Rms on-state current(full sine wave)	16	A	
I_{TSM}	Non- repetitive Peak on-state Current (Tj=25°C, tp=20ms)	160	A	
I^2t	I^2t for fusing(tp=10ms)	140	A ² S	
I_{GM}	Peak gate current	4	A	
V_{GM}	Peak gate voltage	16	V	
P_{GM}	Peak gate power	40	W	
$P_{G(AV)}$	Average gate power	1	W	
di_T/dt	Repetitive rate of rise of on-state current after triggering (I _T =6A, I _G =0.2A, di _G /dt=0.2A/us)	I - II - III	50	A/μs
		IV	50	
T _{stg}	Storage temperature	-40---+150	°C	
T _j	Operating junction temperature	-40---+125		

•Thermai Resistances

Symbol	Parameter	Condition	Type	Unit
Rth j-c	Thermal Resistance,Junction to case	One cycle	220F	1.2 °C/W
Rth j-a	Thermal Resisatance,Junction to ambient	—	—	60 °C/W

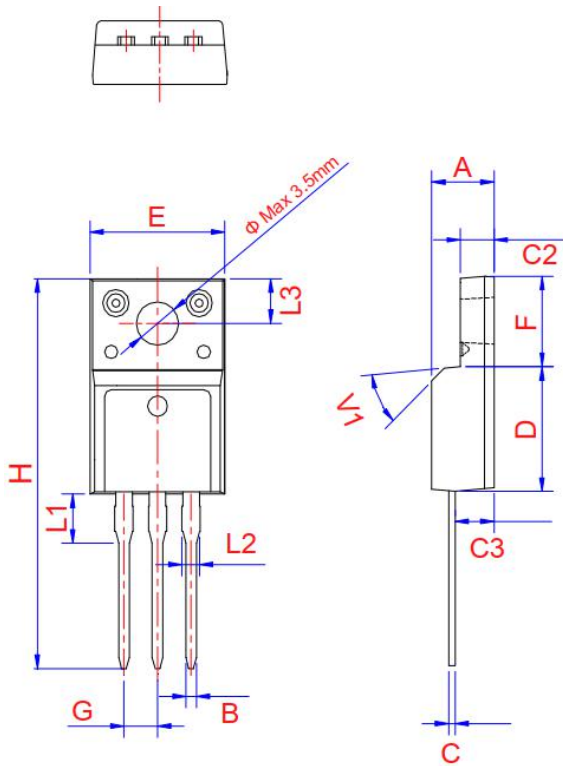
●Electrical characteristics (T_j=25°C unless otherwise stated)

Symbol	Test Conditions	Type	Max		Unit
			C	B	
I _{GT}	BTA316-800 V _D =12V I _T =0.1A				
	T2+ G+	11	16	25	mA
	T2+ G-	12	20	30	mA
	T2- G-	18	25	50	mA
	T2- G+	—	—	—	mA
I _H	V _D =12V I _{GT} =0.1A		25	50	mA
V _{TM}	I _T =20A	—1.3—	1.7		V
I _{DRM}	V _{DRM} =520V		10		μ A
I _{RRM}	V _{RRM} =520V		15		μ A
V _{GT}	V _D =12V I _T =0.1A T _j =125°C	—	1.65		V
I _D	V _D =V _{DRM (MAX)} T _j =125°C	—	0.5		mA

●Dynamic characteristics (T_j=25°C unless otherwise stated)

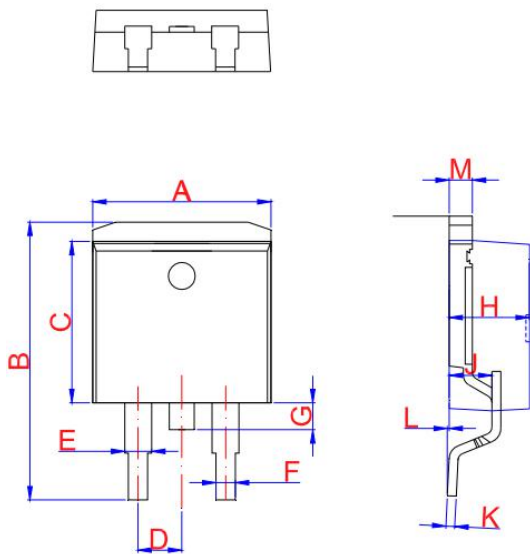
Symbol	Test Conditions	Type	Max		Unit
			Min	Max	
dV/dt	V _{DM} =67% V _{DM (MAX)} T _j =110°C		200	—	V/μ s
(dV/dt) _c	(dI/dt) _c =7A/ms T _j =125°C	—	5	10	μ s

● Measure of package TO-220F TO-263 :



TO-220F

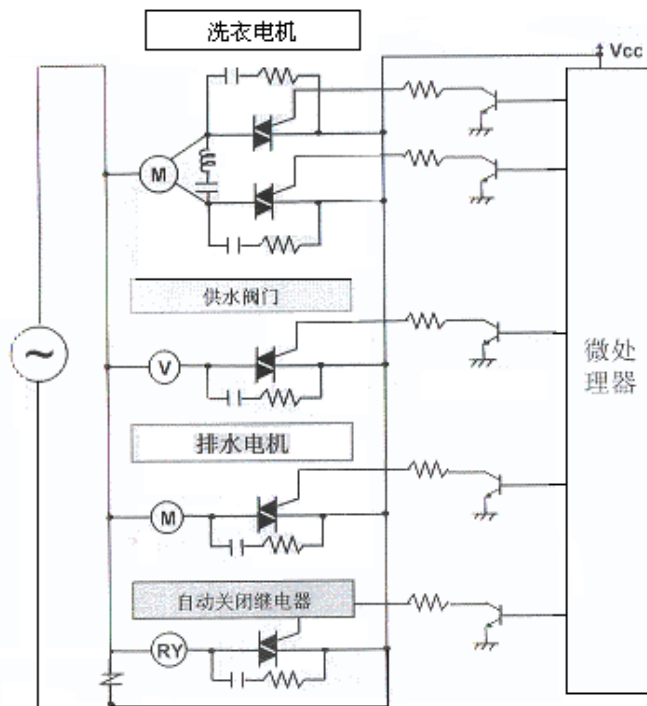
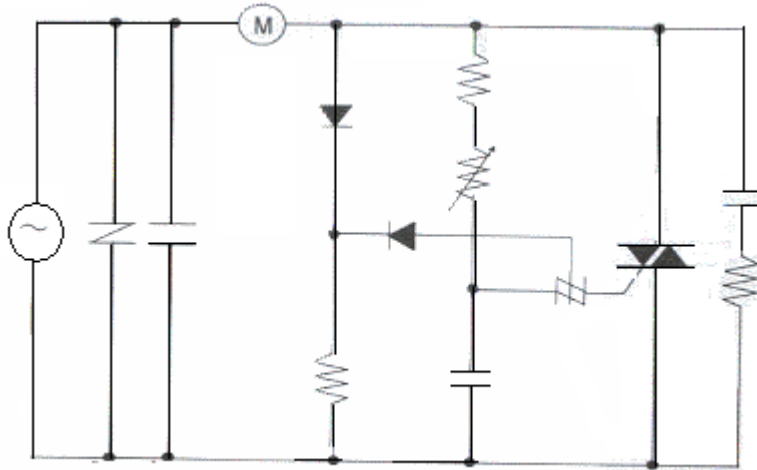
Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.5		4.9	0.177		0.193
B	0.74	0.8	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.6		3	0.102		0.118
D	8.8		9.3	0.346		0.366
E	9.8		10.4	0.386		0.41
F	6.4		6.8	0.252		0.268
G		2.54			0.1	
H	28		29.8	1.102		1.173
L1		3.63			0.148	
L2	1.14		1.7	0.045		0.067
L3	2.65	3.3	0		0.13	0.116
V1		45°			45°	



TO-263

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.9		10.3	0.390		0.406
B	14.7		15.8	0.579		0.622
C	8.5		8.9	0.370		0.378
D		2.54			0.100	
E	1.20		1.40	0.047		0.055
F	0.75		0.85	0.029		0.033
G			1.75			0.069
H	4.40	4.60	4.80	0.173	0.181	0.189
J	2.40	2.60	2.80	0.094	0.102	0.110
L	0	0.1	0.25	0	0.004	0.010
M	1.17	1.27	1.37	0.046	0.05	0.054

●Electrocircuit:



ORDER INFORMATION

NO.	TYPE	PACKAGE
序号	型号	封装形式
1	BTA316B-800C	T0-263
2	BTA316X-800C	T0-220F