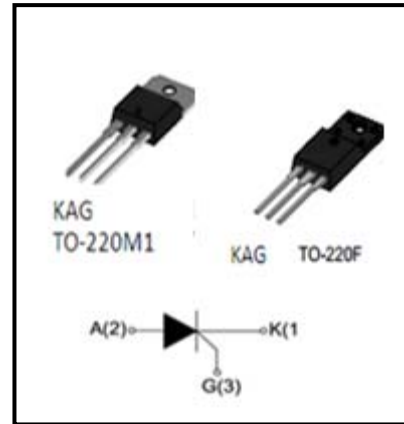


BT152-600R

●Product features

Silicon unilateral device NPNP four layer structure,
 P^+ on the through diffusion isolation,
 Single mesa structure (Single Mesa),
 Table glass passivation process,
 The back (anode) electrode metal: Ti-Ni-Ag
 The high ability of current shock resistance



●The main purposes

Alternating current switch,
 AC DC power converter,
 The control of electric heating
 Motor speed control

● Package

TO-220M1 TO-220F

●Main Feature (Tj=25°C)

Symbol	Value	Unit
$I_T(RMS)$	20	A
V_{DRM} / V_{RRM}	600	V
I_{GT}	≤ 25	mA

●Absolute ratings (Limiting Values)

Symbol	Parameter	Value	Unit
$I_T(RMS)$	RMS on-state current (180° conduction angle)	20	A
$I_{T(AV)}$	AV on-state current (180° conduction angle)	13	A
I_{TSM}	Non repetitive surge peak on-state Current (tp=10ms)	200	A
I_{GM}	Peak gate current(tp=20us)	4	A
P_{GM}	Peak gate power	5	W
$P_{G(AV)}$	Average gate power	1	W
Tstg	Storage temperature	-40--+150	°C
Tj	Operating junction temperature	-40--+125	

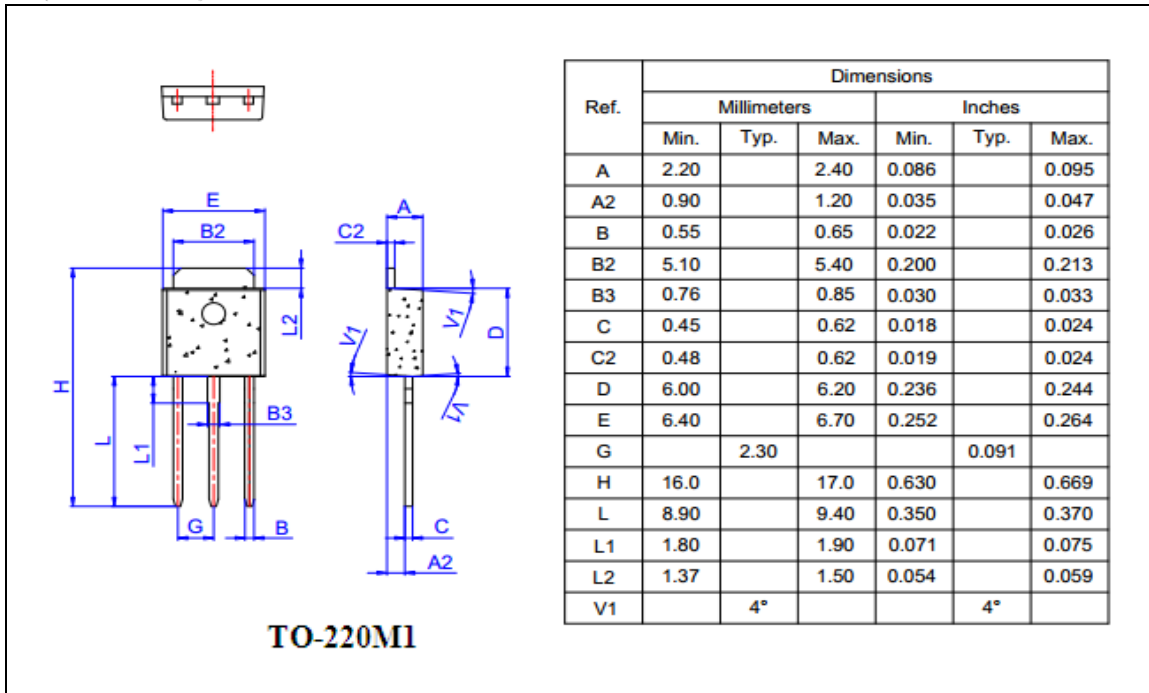
●Thermai Resistances

Symbol	Parameter		Value	Unit
Rth (j-c)	Junction to case	TO-220M1	2.2	°C/W
		TO-220F	2.5	

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

Symbol	Test Conditions	Value			Unit	
		Min	Type	Max		
I _{GT}	V _D =12V, R _L =33 Ω	----	5	25	mA	
V _{GT}	V _D =12V, R _L =33 Ω	-----	-----	1.3	V	
V _{GD}	V _D =V _{DRM} , R _L =3.3K Ω, R _{GK} =1K Ω, T _j =125°C	0.2	-----	-----	V	
I _H	I _T =500mA	-----	-----	30	mA	
I _L	I _G =1.2I _{GT}	-----	-----	60	mA	
dV/dt	V _D =67%V _{DRM} , GateOpen, T _j =110°C	500	-----	-----	v/ μ s	
V _{TM}	I _T =30A, tp=380 μ s	-----	-----	1.6	V	
di/dt	I _G =2I _{GT}	50	-----	-----	A/ μ s	
I ² T	Tp=10ms	-----	-----	200	A ² S	
I _{DRM}	V _D =V _{DRM}	T _j =25°C	-----	-----	10	μA
		T _j =125°C	-----	-----	1	mA
I _{RRM}	V _R =V _{RRM}	T _j =25°C	-----	-----	10	μA
		T _j =125°C	-----	-----	1	mA

● Measure of package
(TO-220M1)



(TO-220F)

