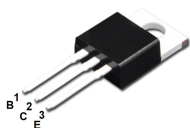
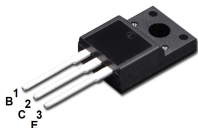


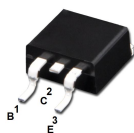
NPN Silicon Epitaxial Planar Transistor



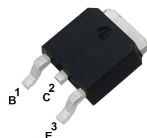
TO-220AB



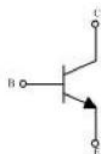
TO-220F



TO-263



TO-252



FEATURES

- High voltage
- High speed switching


RoHS
 COMPLIANT

APPLICATIONS

- High Speed Switching
- Suitable for Switching Regulator and Motor Control

MECHANICAL DATA

- **Case:** Molded plastic
- **Polarity:** As marked
- **Mounting Position:** Any
- **Molded Plastic:** UL Flammability Classification Rating 94V-0
- Lead free in compliance with EU RoHS 2011/65/EU directive
- Solder bath temperature 275°C maximum, 10s per JESD 22-B106

Maximum Ratings at Ta=25°C unless otherwise specified

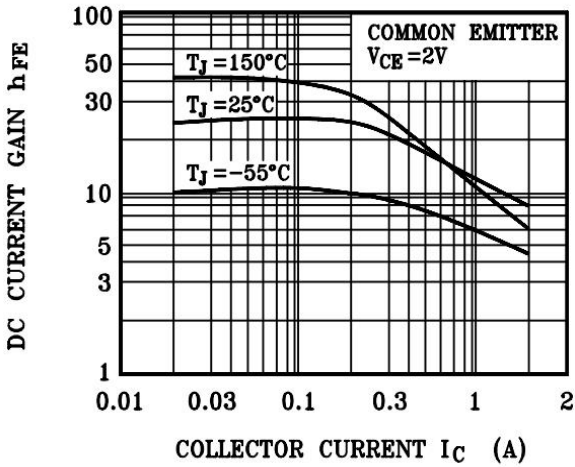
Characteristics	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	700	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	9	V
Collector Current	I_C	1.5	A
Thermal Resistance from Junction to Ambient	$R_{\theta JA}$	62.5	°C/W
Power Dissipation (Tc = 25 °C) Superimposed on Rated Load (JEDEC method)	P_{tot}	1.25	W
Operating Temperature Range	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Electrical Characteristics(Ta=25°C)

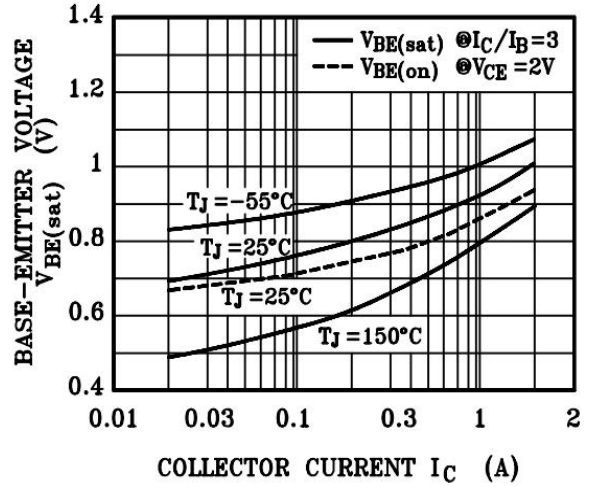
Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 5V, I_C = 200mA$	h_{FE}	15	-	35	-
Collector Base Cutoff Current at $V_{CB} = 670V$	I_{CBO}	-	-	10	μA
Collector Emitter Cutoff Current at $V_{CE} = 400V$	I_{CEO}	-	-	10	μA
Emitter Base Cutoff Current at $V_{EB} = 9V$	I_{EBO}	-	-	10	μA
Collector Emitter Saturation Voltage at $I_C = 1A, I_B = 200mA$	$V_{CE(sat)}$	-	-	0.5	V
Base Emitter Saturation Voltage at $I_C = 1A, I_B = 200mA$	$V_{BE(sat)}$	-	-	1.5	V
Transition Frequency at $V_{CE}=10V, I_C=100mA, f=1MHz$	f_T	5	-	-	MHZ

RATINGS AND CHARACTERISTIC CURVES

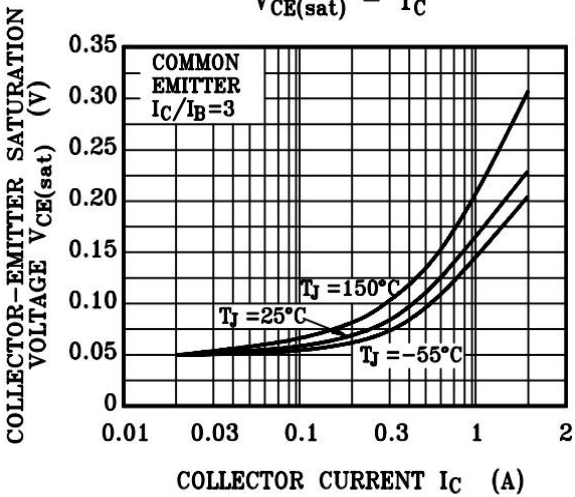
DC CURRENT GAIN



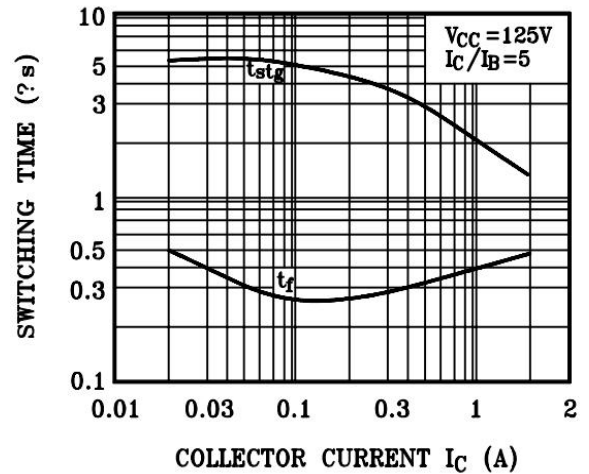
$V_{BE(sat)} - I_C$



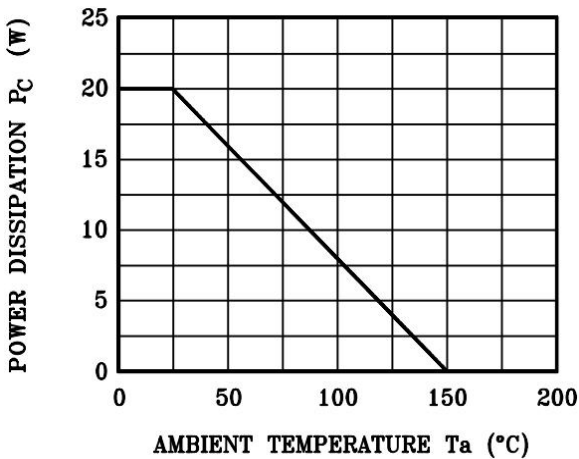
$V_{CE(sat)} - I_C$



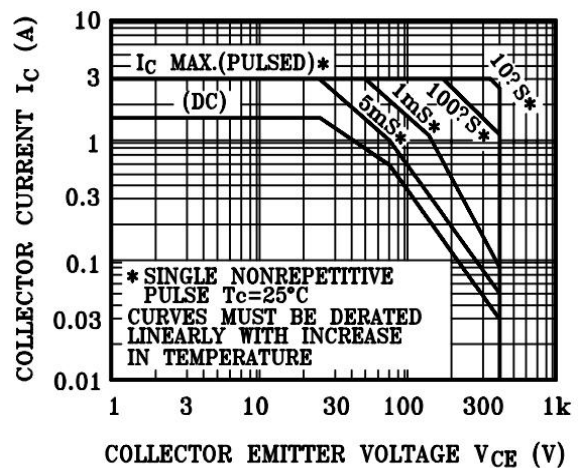
SWITCHING CHARACTERISTIC

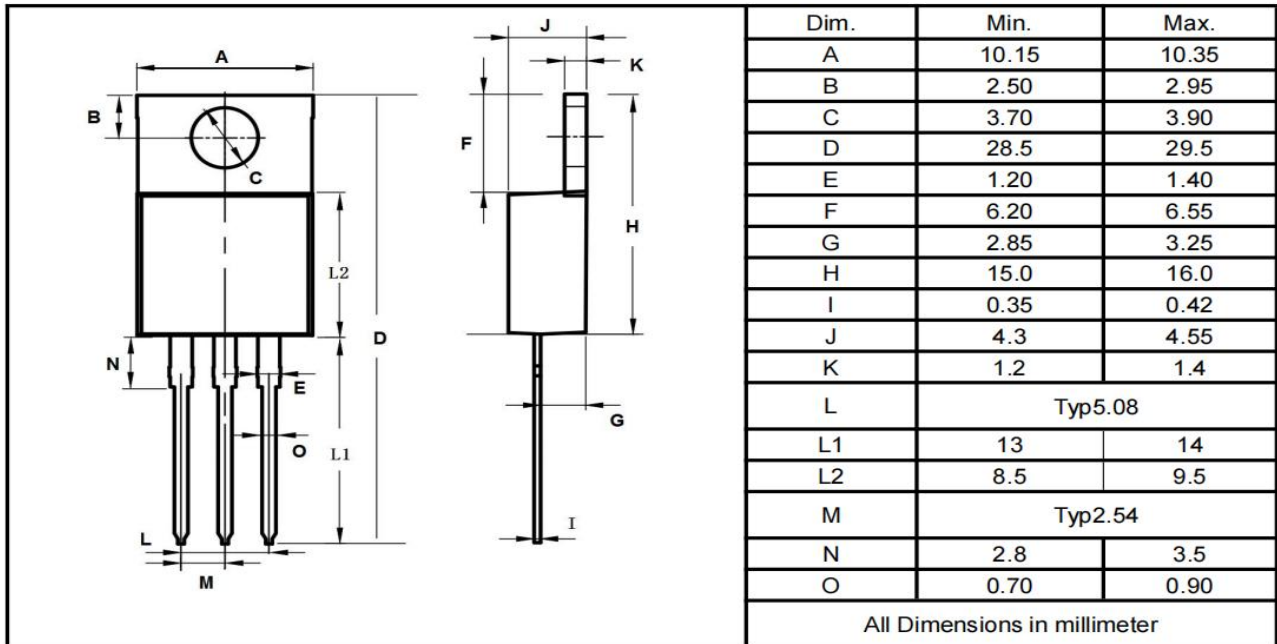
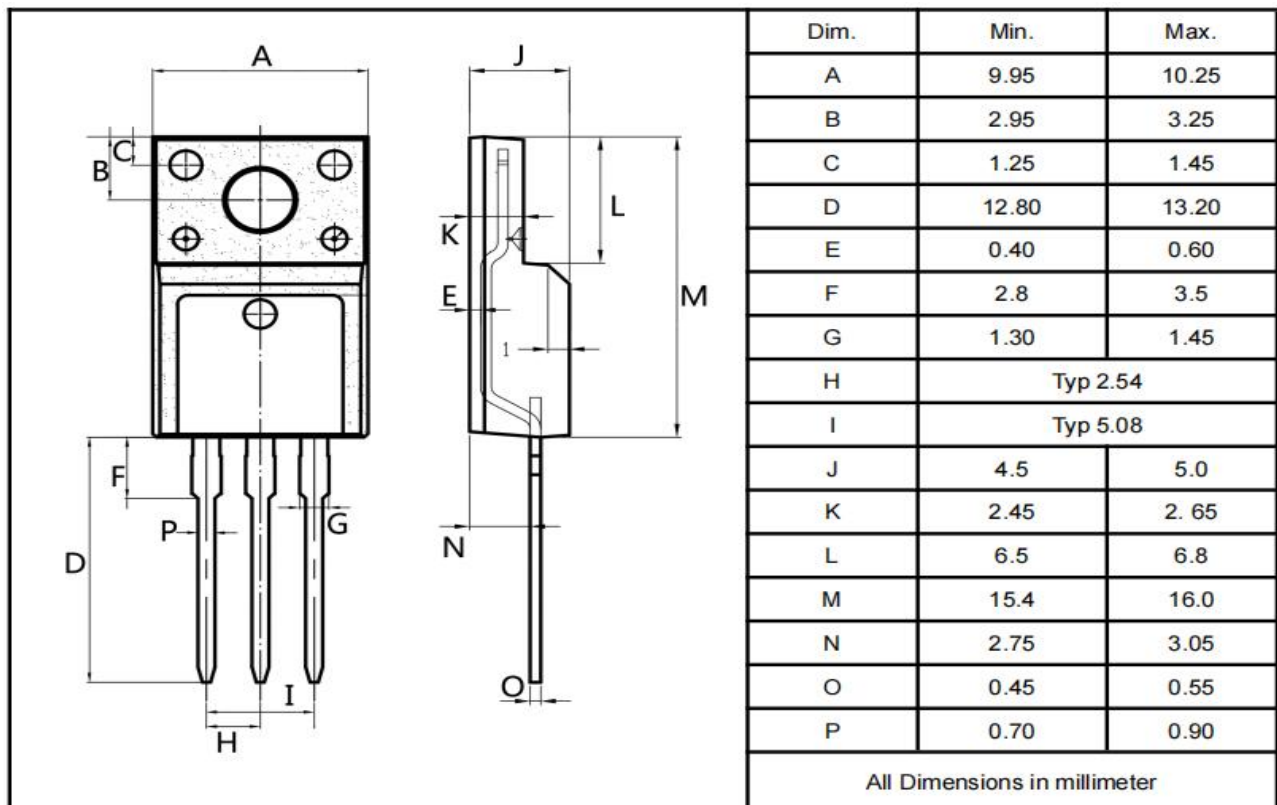


$P_C - T_a$



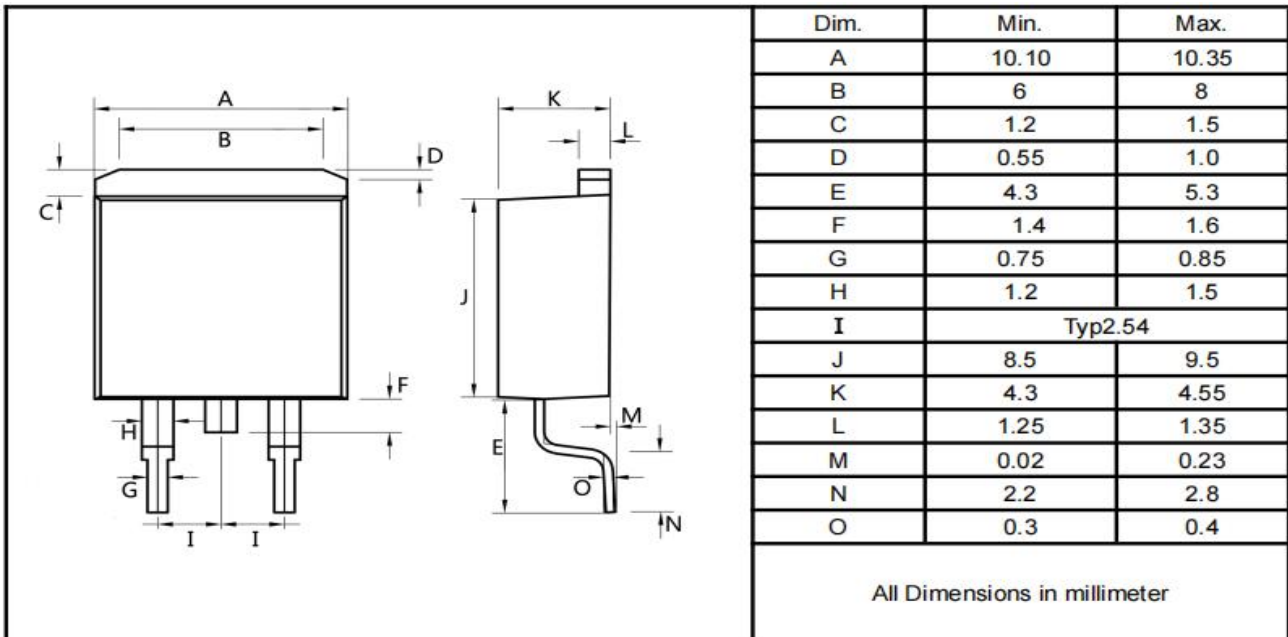
SAFE OPERATING AREA



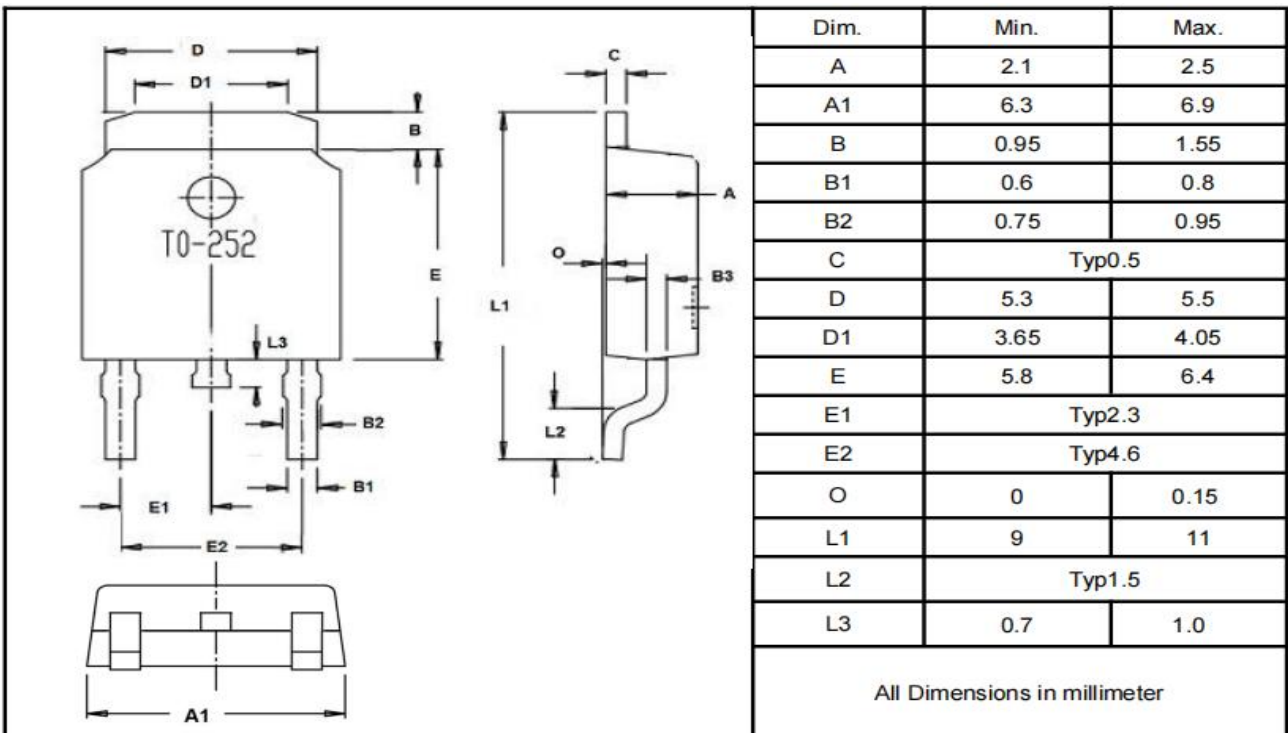
Package Outline Dimensions millimeters
TO-220AB

TO-220F


Package Outline Dimensions millimeters

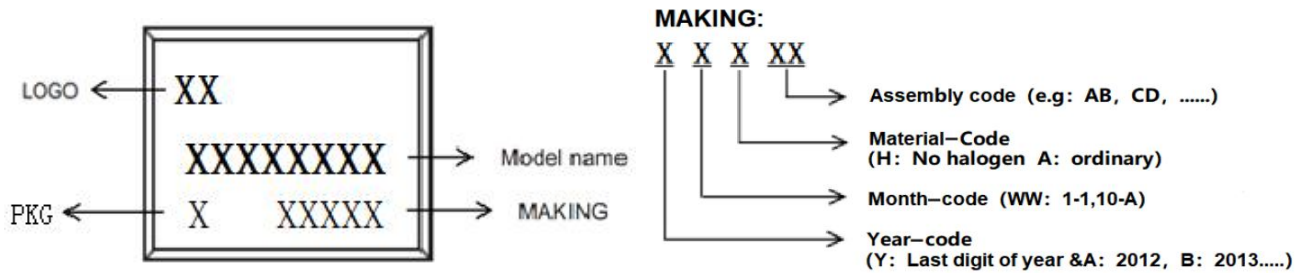
T0-263



T0-252



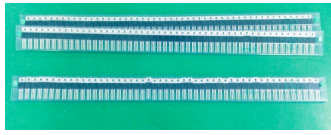








Marking on the body



Product specification classification

Part Number	Package	Unit Weight	Base Quantity	Delivery mode
LX13003A1	TO-220AB	0.07oz(1.96g)	50 pcs / tube	1000pcs/box 5000pcs/carton
LX13003A2	TO-220F	0.06oz(1.74g)	50 pcs / tube	1000pcs/box 5000pcs/carton
LX13003A3	TO-263	0.04oz(1.16g)	50 pcs / tube	1000pcs/box 5000pcs/carton
LX13003A3-R	TO-263	0.04oz(1.16g)	800 pcs / tube	1600pcs/box 8000pcs/carton
LX13003	TO-252	0.011oz(0.32g)	2500 pcs / reel	5000pcs/box 25000pcs/carton

packing instruction

PKG	最小包装	内盒	外箱
TO-220AB TO-220F TO-263			
	50pcs/管	1000pcs/盒	5000pcs/箱
TO-263-R			
	800pcs/盘	1600pcs/盒	8000pcs/箱
TO-252			
	2500pcs/盘	5000pcs/盒	25000pcs/箱

Notice

- All product, product specifications and data are subject to change without notice to improve. The right to explain is owned by LINGXUN electronics company.
- Confirm that operation temperature is within the specified range described in the product specification. Avoid applying power exceeding normal rated power;
exceeding the power rating under steady-state loading condition may negatively affect product performance and reliability.
- LINGXUN electronics shall not be in any way responsible or liable for failure induced under deviant condition from what is defined in this document.