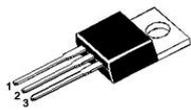
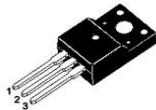


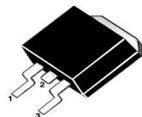
LOW VF SCHOTTKY RECTIFIER



TO-220AB/CT



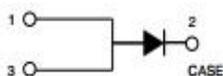
TO-220F/FCT



TO-263/DC



TO-252/CS



FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

Primary Characteristic

$I_O$	10A
$V_{RRM}$	150V
$I_{FSM}$	160A
$V_F$	0.67V
$T_{jmax}$	150°C

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
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	150	V
Working Peak Reverse Voltage	$V_{RWM}$	150	V
Maximum DC Blocking Voltage	$V_{DC}$	150	V
Maximum Average Forward Rectified Current	$I_O$	10	A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	160	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB,TO-263,TO-252	$R_{\theta JC}$	2	°C/W
TO-220F		4	

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

Electrical Characteristics unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		$V_F$	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.64	-	
	TA=125°C		0.53	-	
at $I_F=5A$	TA=25°C		0.71	0.78	
	TA=125°C		0.58	-	
at $I_F=10A$	TA=25°C		0.81	0.96	
	TA=125°C		0.67	-	
Maximum Reverse Current at $V_R=150V$	TA=25°C		$I_R$	1.5	
	TA=125°C	1.5		-	mA

Note2:Pulse test: 300 µs pulse width, 1 % duty cycle

# RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

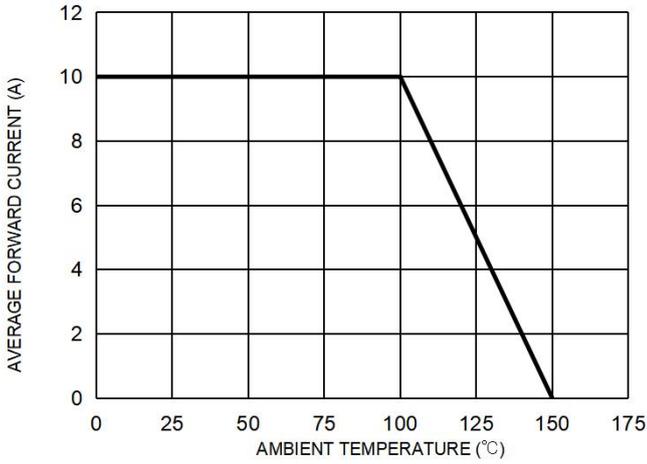


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

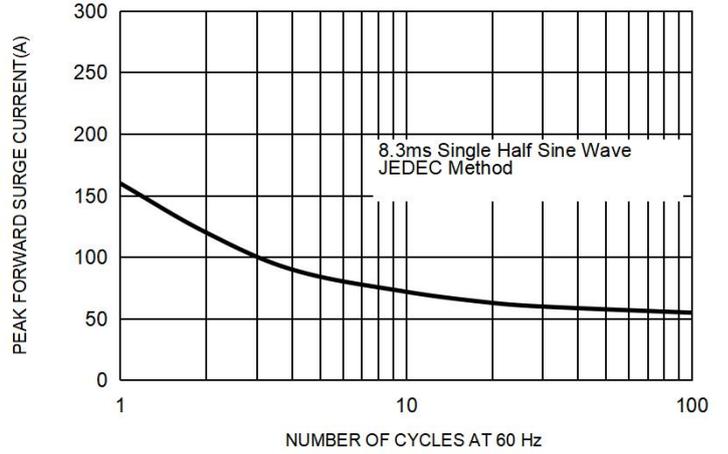


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

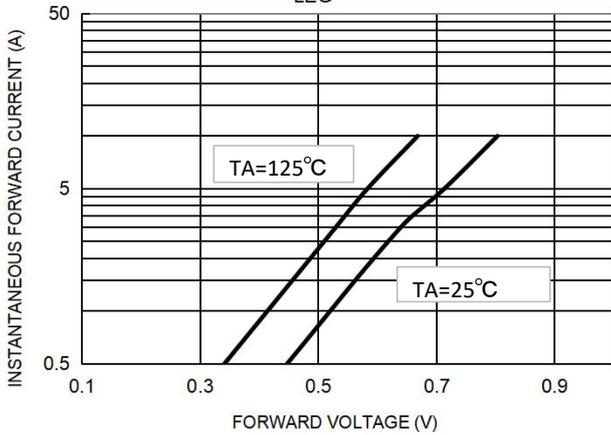
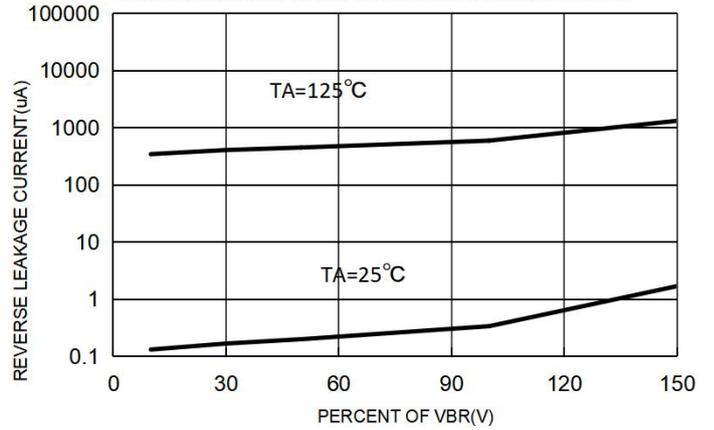
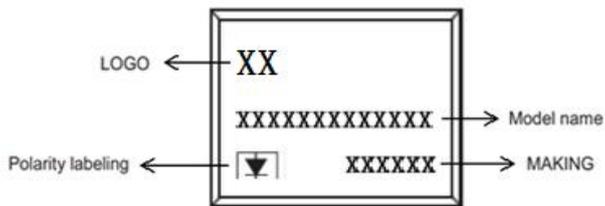


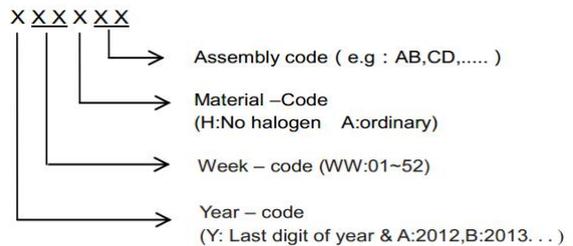
FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG



## Marking on the body

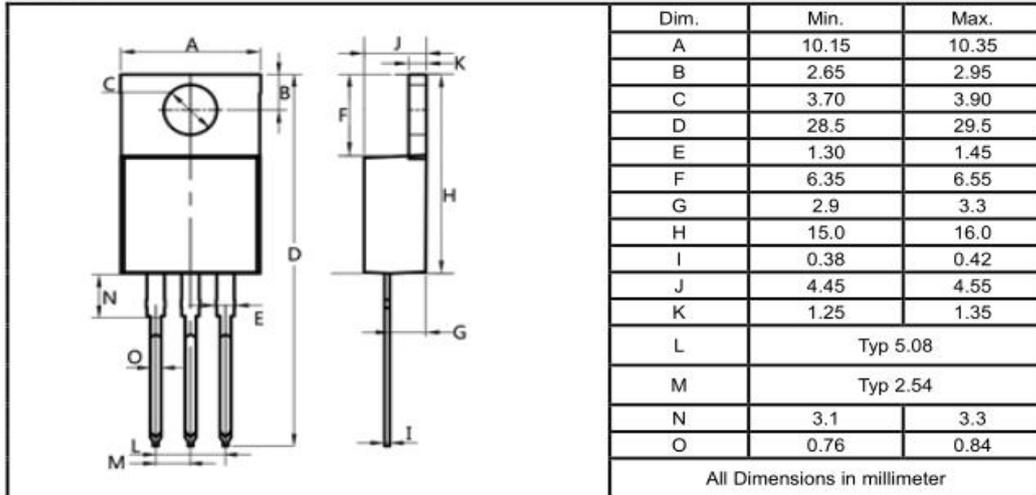


### MAKING:

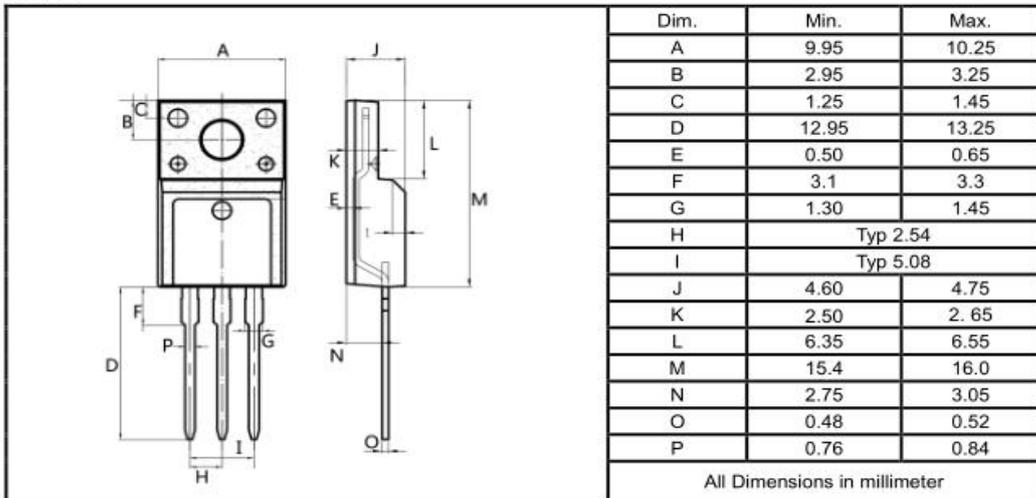


# Package Outline Dimensions millimeters

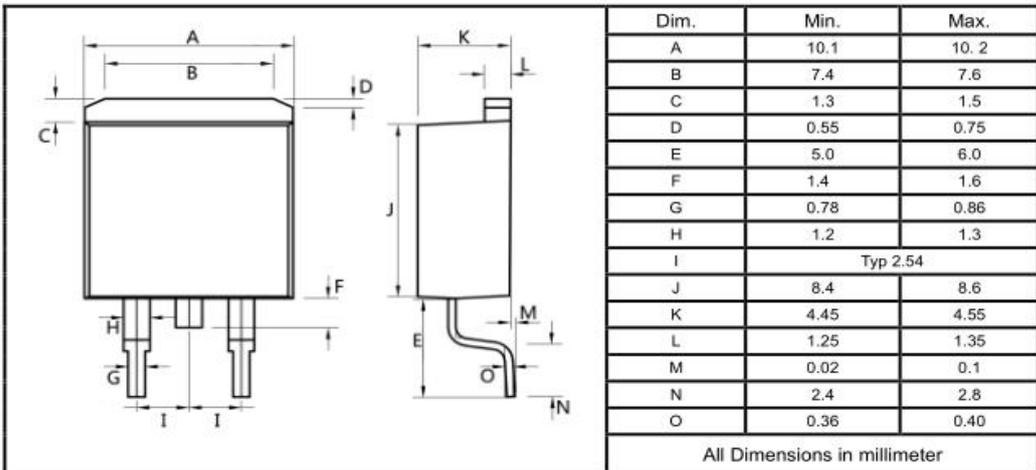
**TO-220AB**



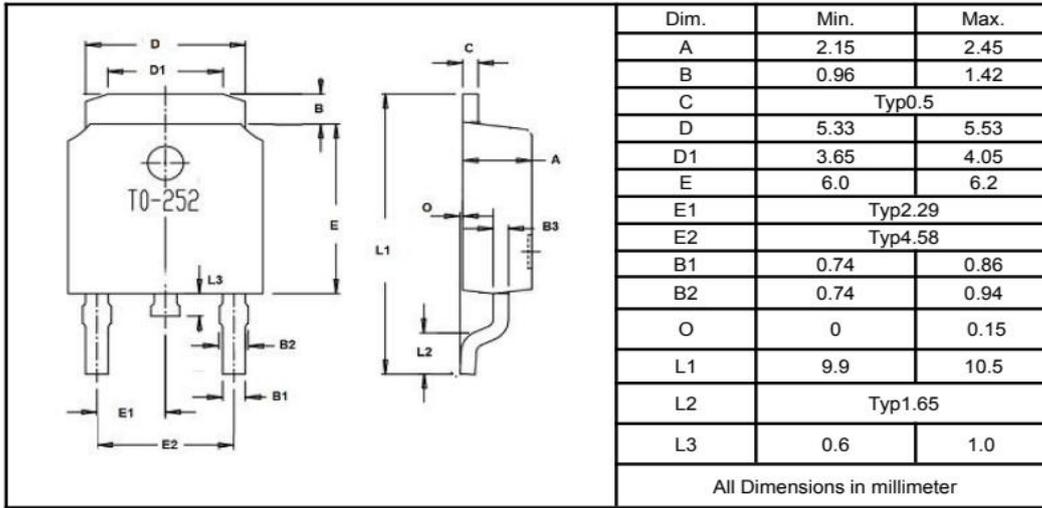
**TO-220F**



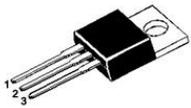
**TO-263**



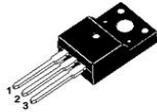
**TO-252**



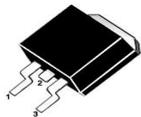
## LOW VF SCHOTTKY RECTIFIER



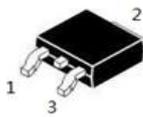
TO-220AB/SCT



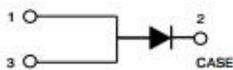
TO-220F/SFCT



TO-263/SDC



TO-252/SCS



### FEATURES

- Low forward voltage
- High current capability
- High forward surge capability
- Low power losses, High efficiency
- Guarding for over voltage protection

### APPLICATIONS

Low VF Schottky barrier rectifier are designed for high frequency, miniature switched mode power supplies such as adapters ,lighting and on-board DC/DC conerters

### Primary Characteristic

$I_O$	10A
$V_{RRM}$	100V
$I_{FSM}$	160A
$V_F$	0.62V
$T_{jmax}$	150°C

### 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
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	V
Working Peak Reverse Voltage	$V_{RWM}$	100	V
Maximum DC Blocking Voltage	$V_{DC}$	100	V
Maximum Average Forward Rectified Current	$I_O$	10	A
Peak Forward Surge Current,8.3 ms Single Half Sine-wave	$I_{FSM}$	160	A
Operating Temperature Range	$T_J$	-50 to +150	°C
Storage Temperature Range	$T_{STG}$	-50 to +150	°C
Typical Thermal Resistance (Note1) TO-220AB,TO-263,TO-252	$R_{\theta JC}$	2	°C/W
TO-220F		4	

Note1: Thermal resistance from Junction to case per leg mounted on heatsink.

### Electrical Characteristics unless otherwise specified

Characteristics		Symbol	Value		Unit
Forward Voltage Drop(Note2)		$V_F$	Typ.	Max.	V
at $I_F=3A$	TA=25°C		0.49	-	
	TA=125°C		0.43	-	
at $I_F=5A$	TA=25°C		0.55	0.58	
	TA=125°C		0.51	-	
at $I_F=10A$	TA=25°C		0.67	0.70	
	TA=125°C		0.62	-	
Maximum Reverse Current at $V_R=100V$	TA=25°C		$I_R$	5	
	TA=125°C	5		-	mA

Note2:Pulse test: 300 µs pulse width, 1 % duty cycle

# RATINGS AND CHARACTERISTIC CURVES

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

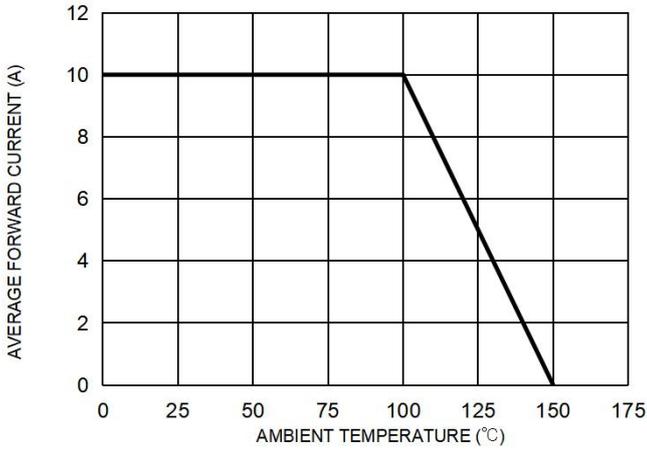


FIG.2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

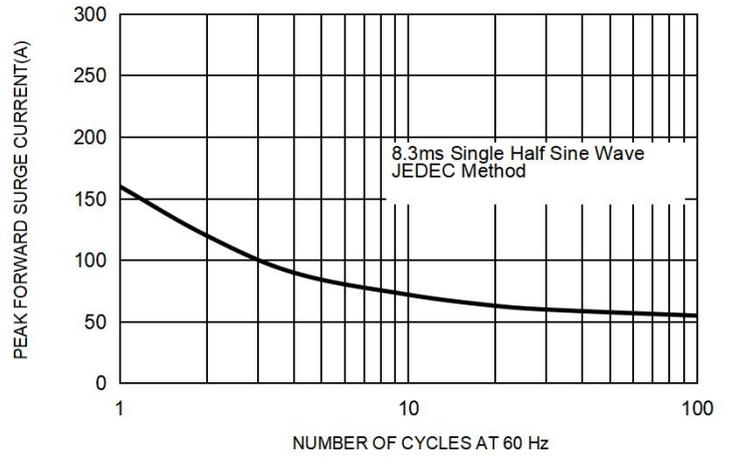


FIG.3 TYPICAL FORWARD CHARACTERISTICS PER LEG

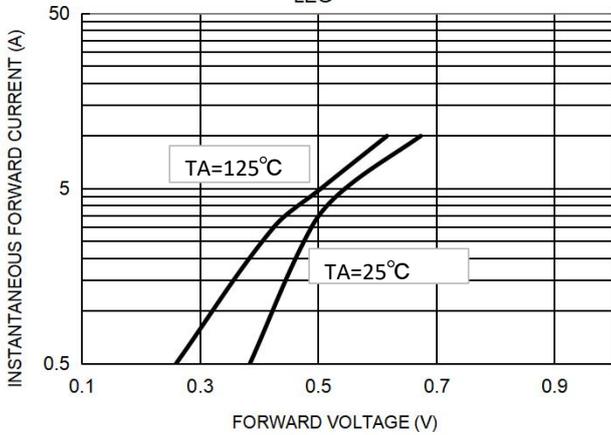
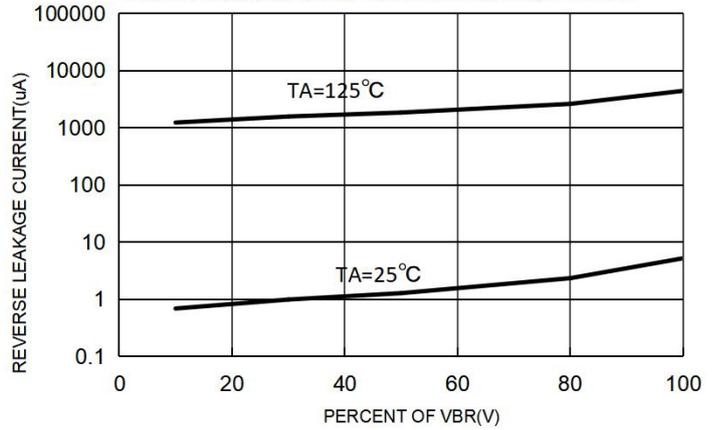
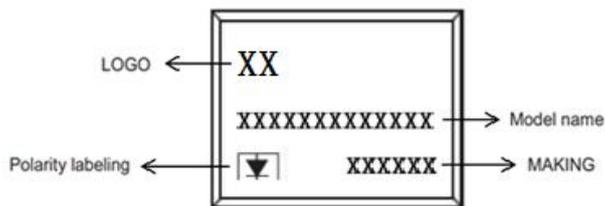


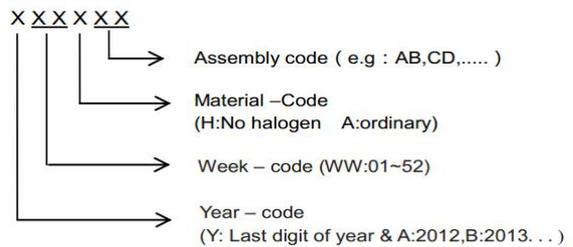
FIG.4 TYPICAL REVERSE CHARACTERISTICS PER LEG



## Marking on the body

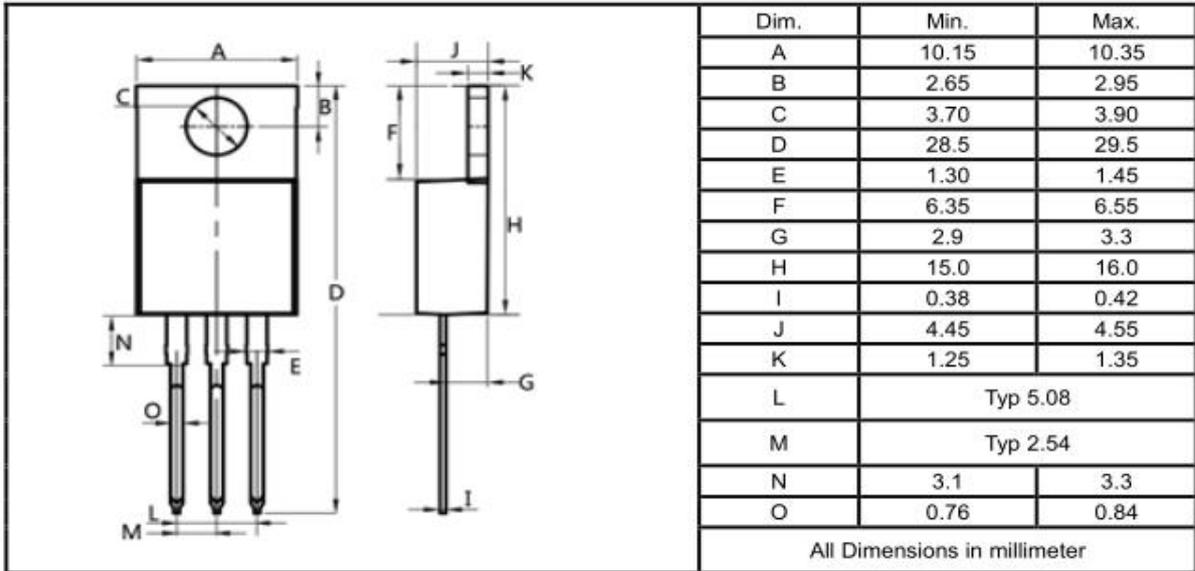


### MAKING:

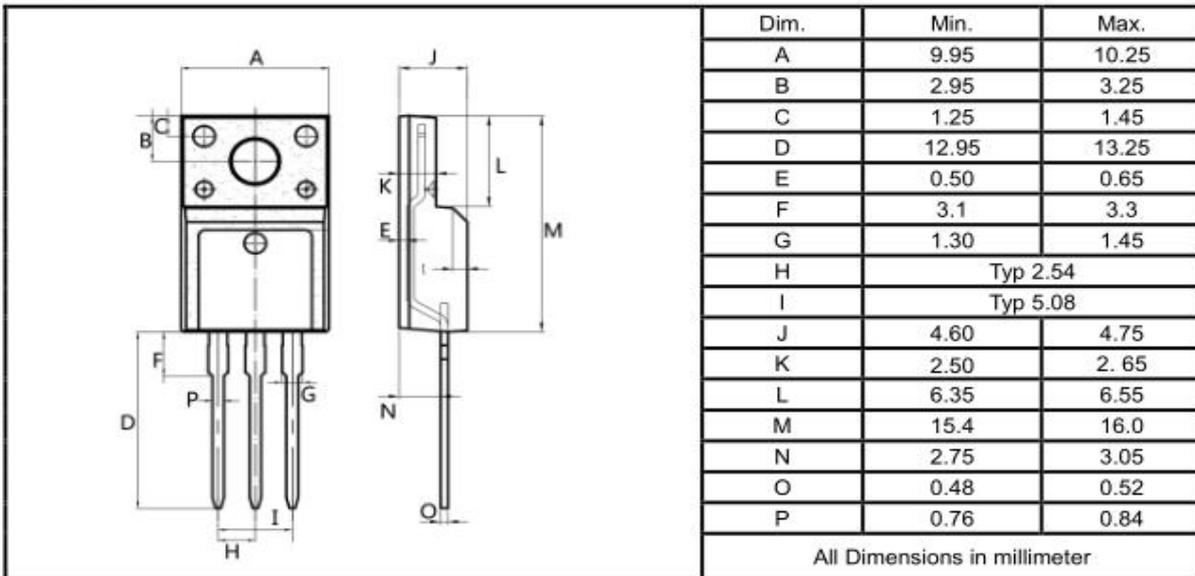


Package Outline Dimensions millimeters

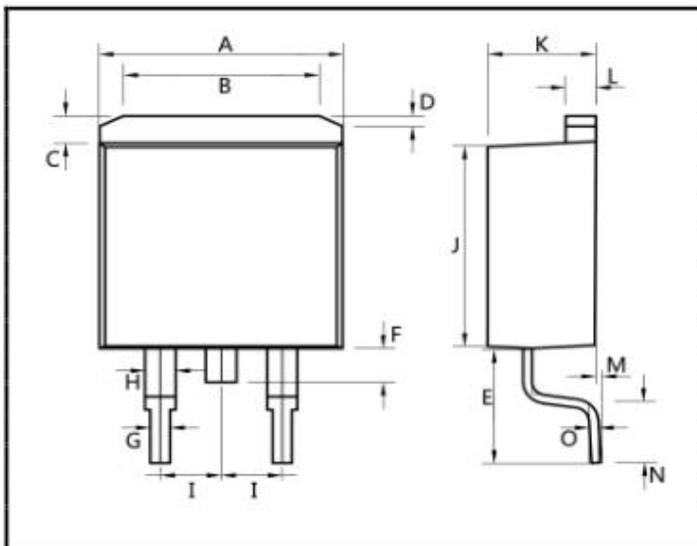
TO-220AB



TO-220F

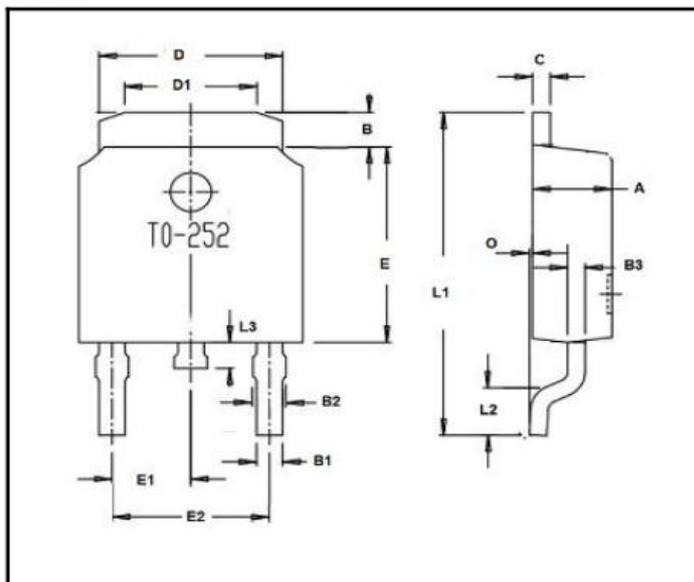


### TO-263



Dim.	Min.	Max.
A	10.1	10.2
B	7.4	7.6
C	1.3	1.5
D	0.55	0.75
E	5.0	6.0
F	1.4	1.6
G	0.78	0.86
H	1.2	1.3
I	Typ 2.54	
J	8.4	8.6
K	4.45	4.55
L	1.25	1.35
M	0.02	0.1
N	2.4	2.8
O	0.36	0.40
All Dimensions in millimeter		

### TO-252



Dim.	Min.	Max.
A	2.15	2.45
B	0.96	1.42
C	Typ0.5	
D	5.33	5.53
D1	3.65	4.05
E	6.0	6.2
E1	Typ2.29	
E2	Typ4.58	
B1	0.74	0.86
B2	0.74	0.94
O	0	0.15
L1	9.9	10.5
L2	Typ1.65	
L3	0.6	1.0
All Dimensions in millimeter		