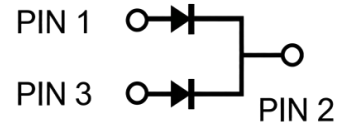


Ultrafast Recovery Rectifiers

Parameter	Value	Unit
V_{RRM}	600	V
$I_{F(AV)}$	20(2*10)	A

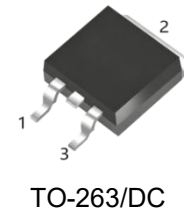
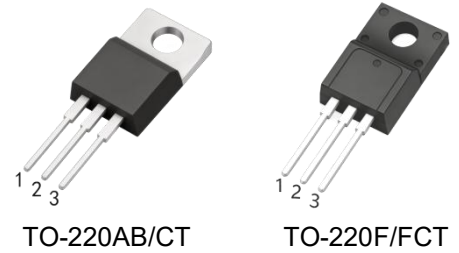


Features

- Low forward voltage drop
- High current capability
- High reliability
- High surge current capability

Applications

- Typical applications are in switching power supplies, converters, freewheeling diodes, and reverse battery protection.



Absolute Maximum Ratings ($T_a=25^\circ\text{C}$, unless otherwise noted)

Parameter	Symbol	Value	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Working Peak Reverse Voltage	V_{RWM}	600	V
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	Per Leg	10
		Total	20
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	180	A
Operating Temperature Range	T_J	175	$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +175	$^\circ\text{C}$
Typical Thermal Resistance (Note1)	$R_{\theta JC}$	TO-220AB, TO-263	2
		TO-220F	4
			$^\circ\text{C/W}$

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

Electrical Characteristics(Per Leg) unless otherwise specified

Parameter		Symbol	Value		Unit
Forward Voltage Drop(Note2)		V_F	Typ.	Max.	V
at $I_F=10A$	$T_A=25^\circ C$		1.35	1.60	
	$T_A=125^\circ C$		1.20	-	
Maximum Reverse Current at $V_R=600V$	$T_A=25^\circ C$	I_R	0.1	2	μA
	$T_A=125^\circ C$		2.3	-	μA
Maximum Reverse Recovery Time at $I_F=0.5A, I_R=1A$		T_{rr}	31	35	ns

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

Typical Characteristics

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

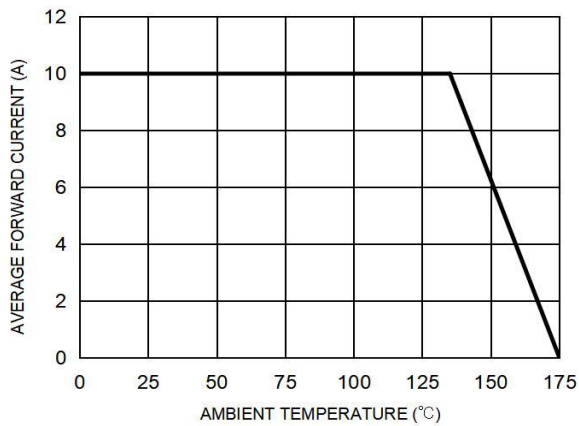


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

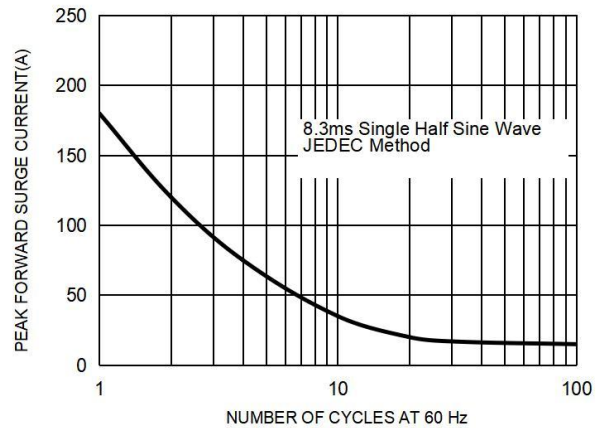


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

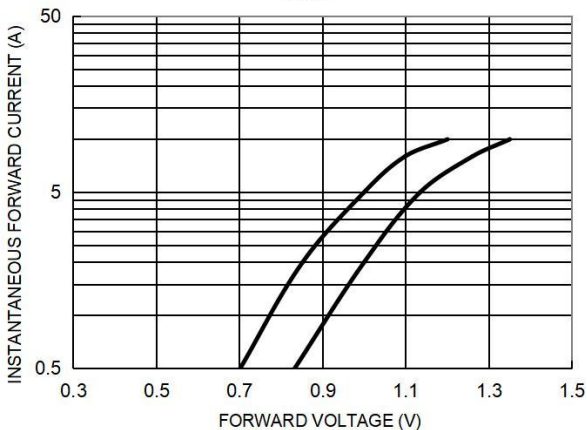
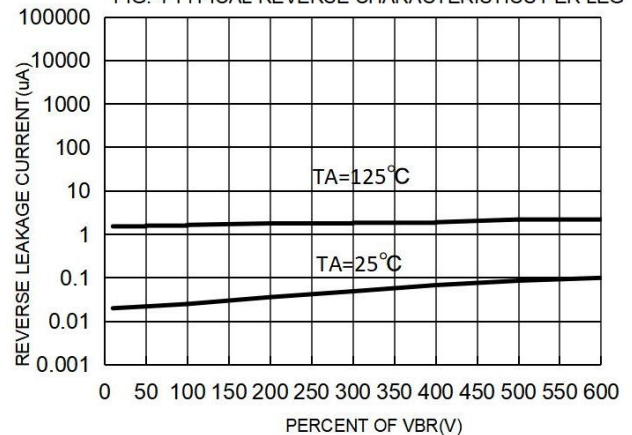
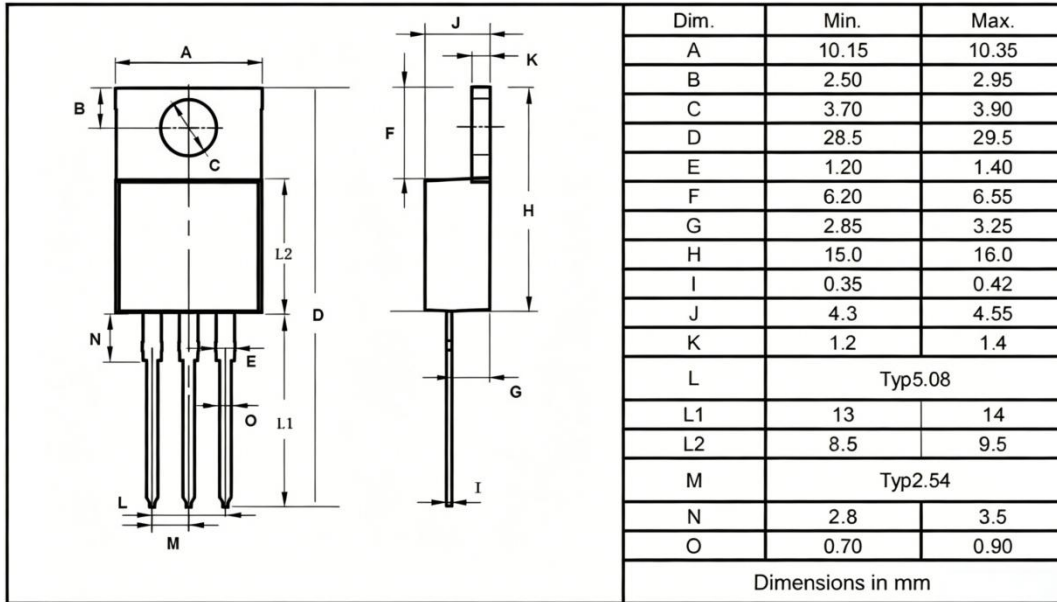


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

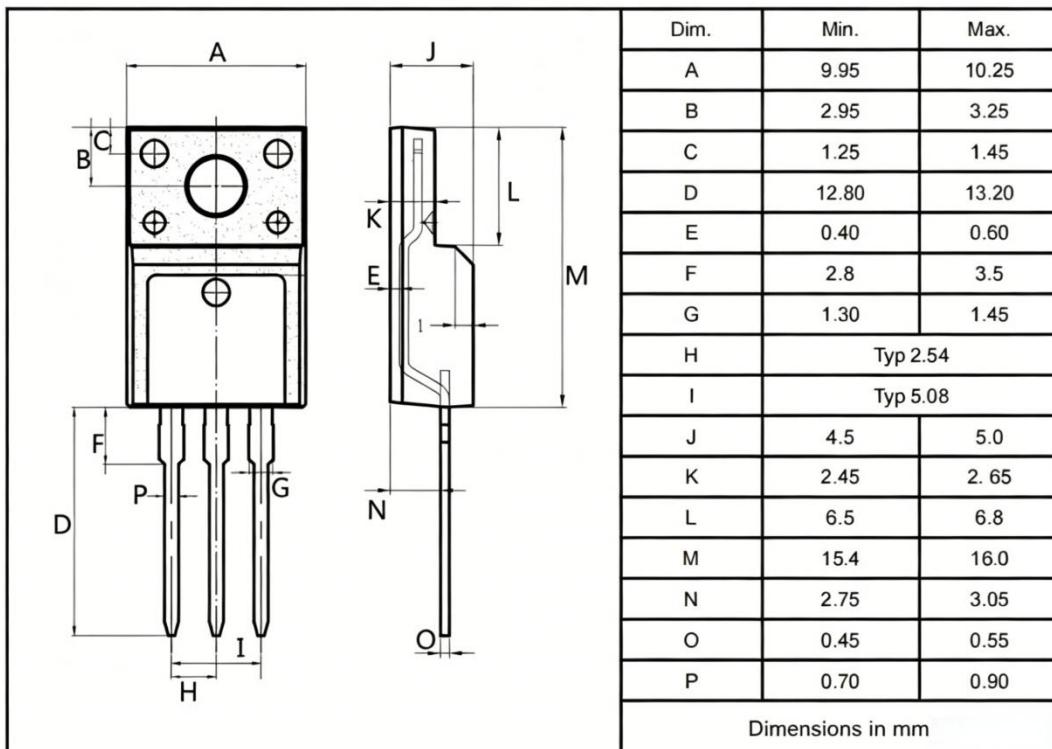


Package Outlines

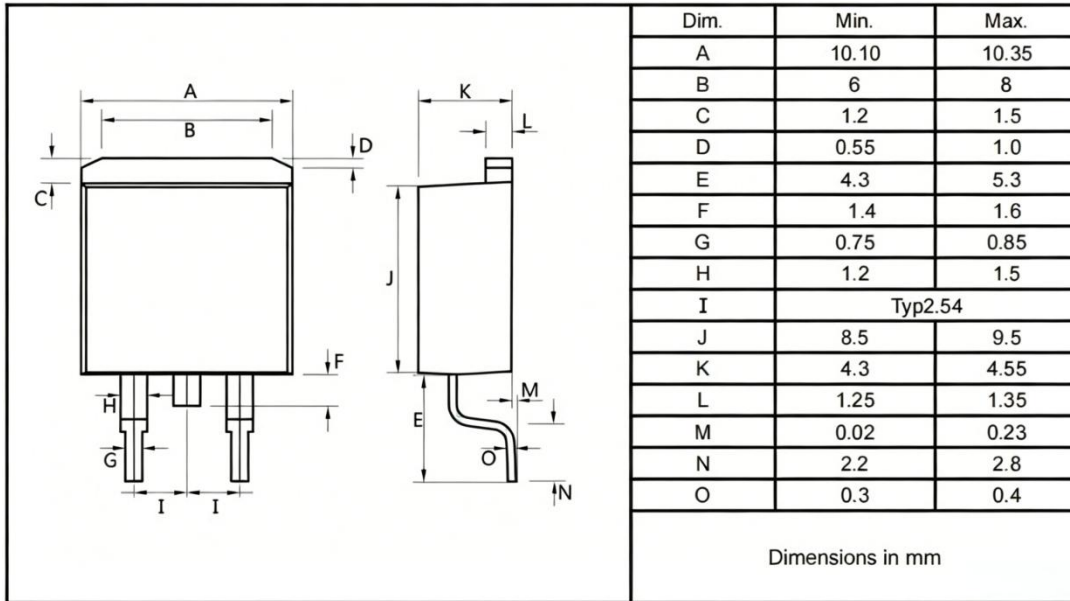
TO-220AB



TO-220F



TO-263



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