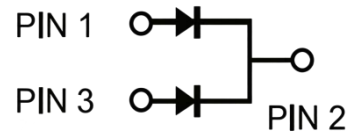


Schottky Barrier Rectifiers

Parameter	Value	Unit
V_{RRM}	150	V
$I_{F(AV)}$	10(2*5)	A

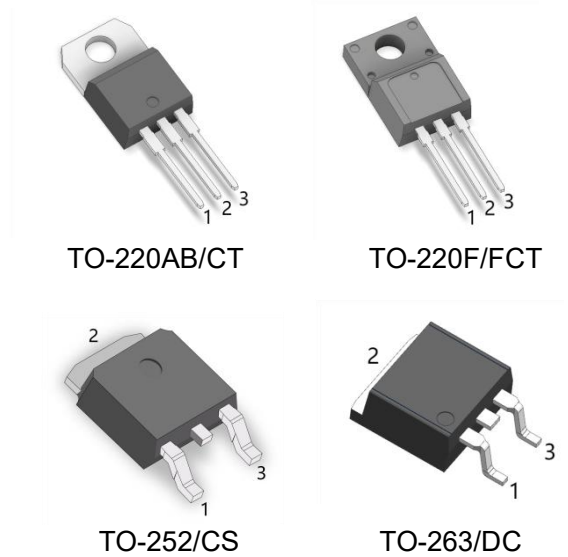


Features

- Common cathode structure
- Low power consumption, high efficiency
- Good high-temperature characteristics
- Over voltage protection loop, high reliability

Applications

- Power Factor Correction(PFC)
- Switched Mode Power Supply(SMPS)
- Uninterruptible Power Supply(UPS)
- Air Conditioner



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

Parameter		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	Per Leg	$I_{F(AV)}$	5	A	
	Total		10		
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)		I_{FSM}	200	A	
Maximum Junction Temperature		T_J	175	$^\circ\text{C}$	
Storage Temperature Range		T_{STG}	-55 to +150	$^\circ\text{C}$	
Typical Thermal Resistance		$R_{\theta JC}$	2.2	$^\circ\text{C/W}$	
TO-220AB, TO-263					
TO-220F					3.5
TO-252					3.0

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

Electrical Characteristics unless otherwise specified

Parameter		Symbol	Value		Unit
Forward Voltage Drop			Typ.	Max.	
$I_F=100\mu A$	$T_J=25^\circ C$	V_R	180	-	V
$I_F=5A$	$T_J=25^\circ C$	V_F	0.8	0.85	
	$T_J=125^\circ C$		0.67	0.7	
$V_R=V_{RRM}$	$T_J=25^\circ C$	I_R	0.2	1.0	μA
	$T_J=125^\circ C$		-	5.0	mA

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

Typical Characteristics

Fig 1. I_F VS V_F

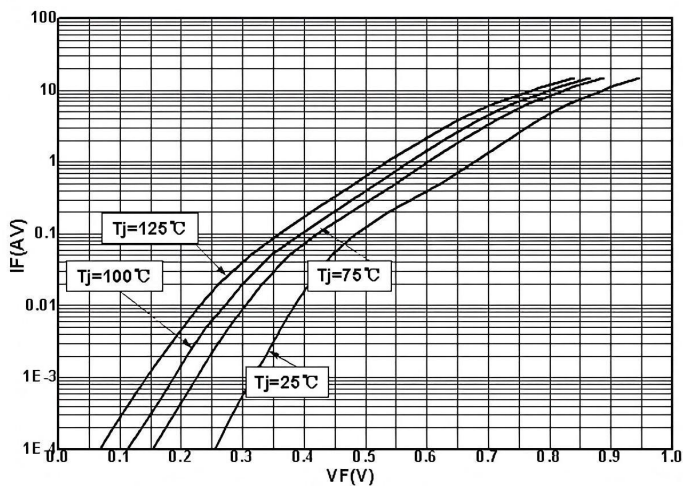


Fig 3. $I_F(AV)$ vs T_C

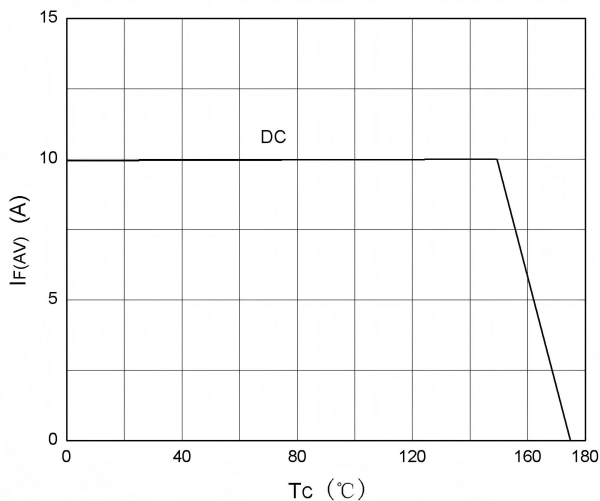


Fig 2. I_R VS V_R

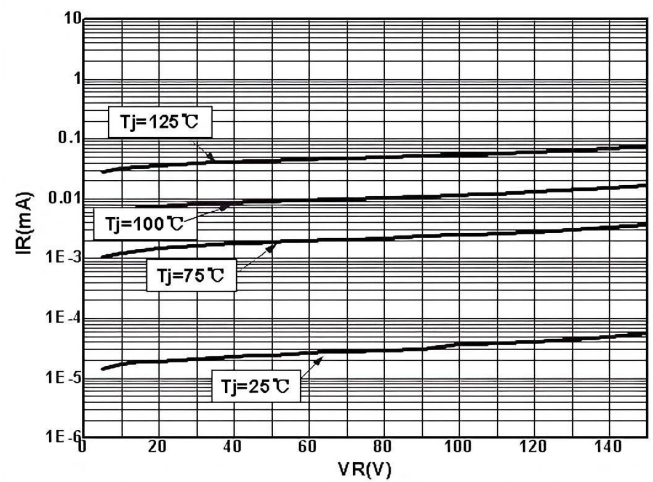
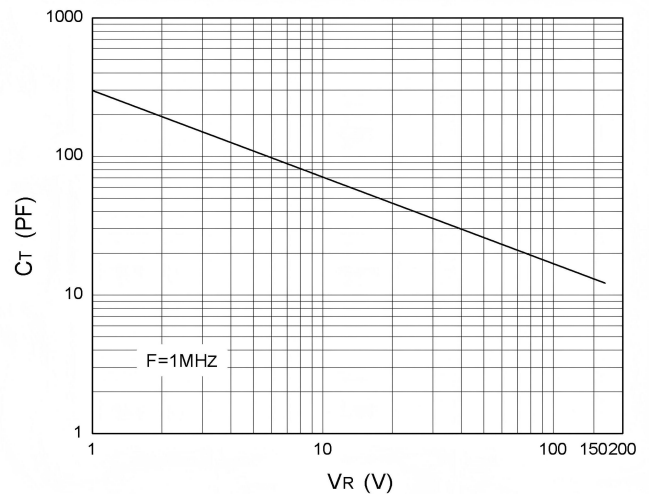
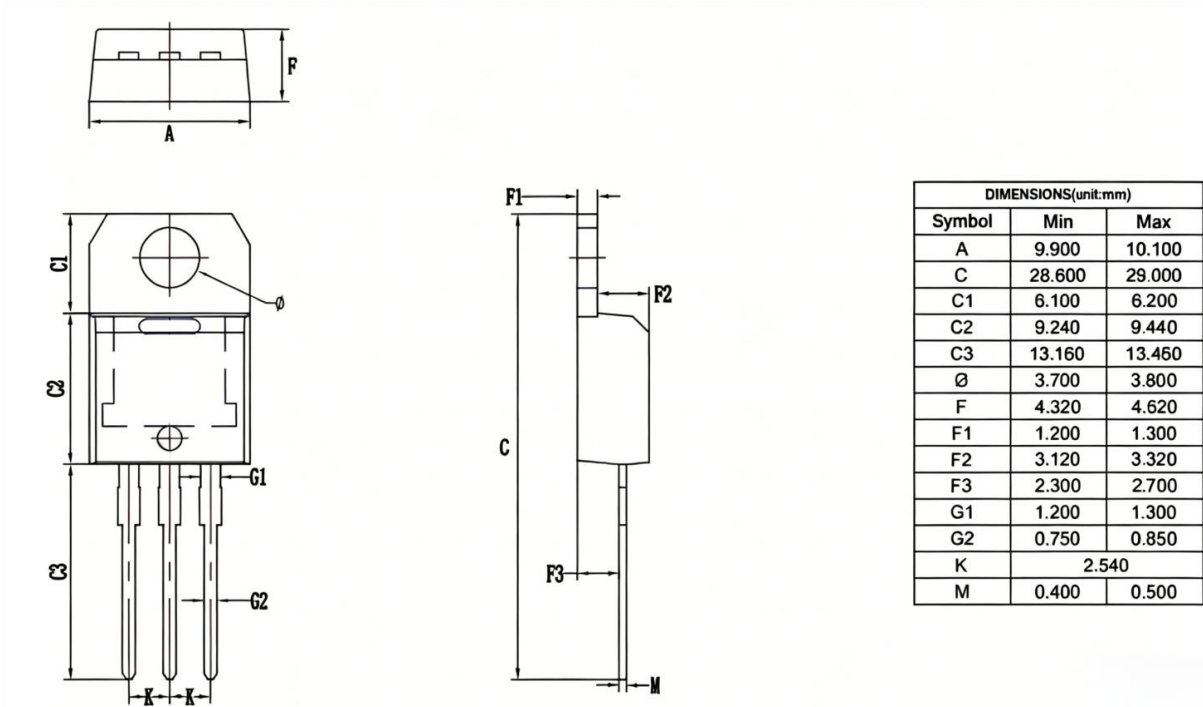


Fig 4. C_T vs V_R

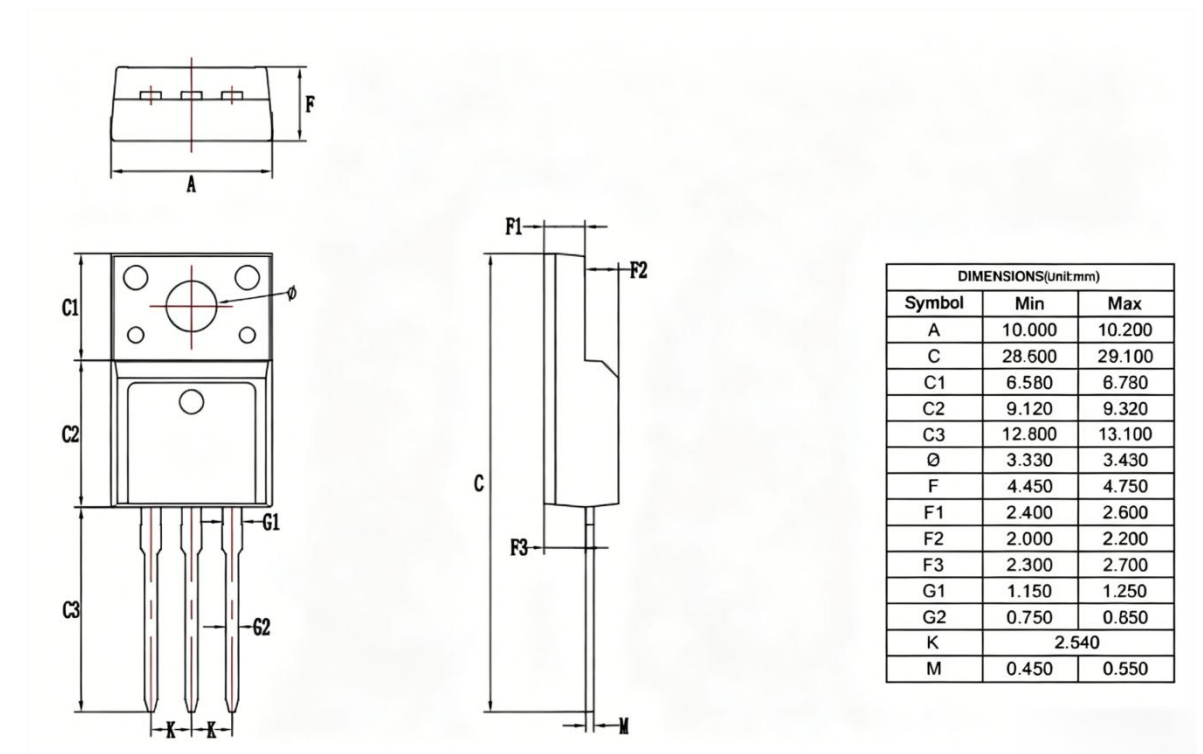


Package Outlines

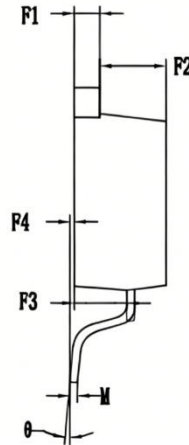
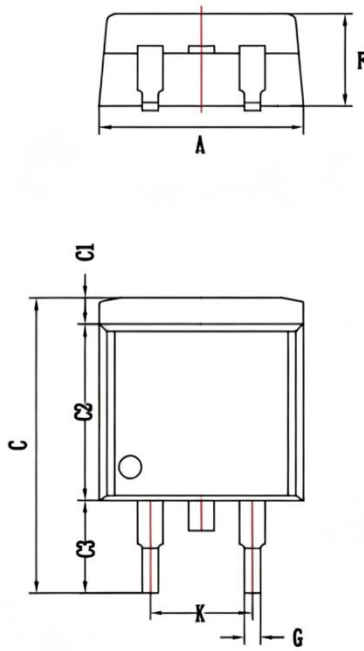
TO-220AB



TO-220F

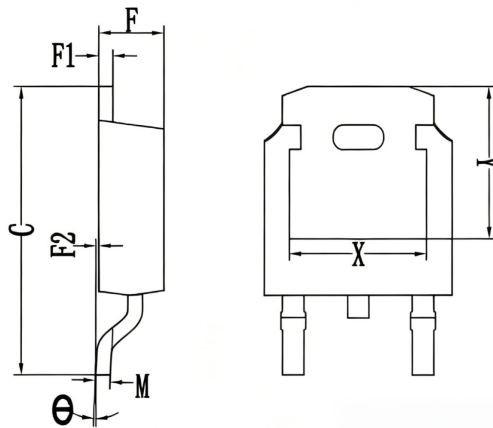
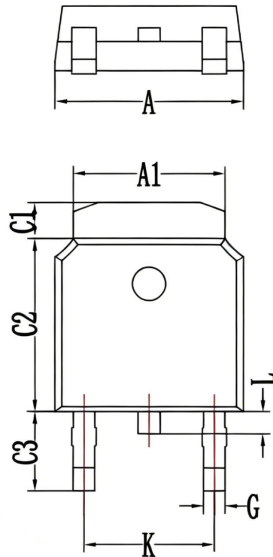


TO-263



DIMENSIONS(Unit:mm)		
Symbol	Min	Max
A	10.000	10.200
C	14.450	14.850
C1	1.250	1.350
C2	8.640	8.840
C3	4.460	4.760
F	4.420	4.720
F1	1.220	1.320
F2	3.200	3.400
F3	2.470	2.720
F4	0.000	0.200
θ	0°	8°
G	0.750	0.850
K	5.080	
M	0.330	0.430

TO-252



DIMENSIONS(Unit:mm)		
Symbol	Min	Max
A	6.500	6.700
A1	5.230	5.430
C	10.000	10.400
C1	1.220	1.320
C2	6.000	6.200
C3	2.700	3.000
F	2.200	2.400
F1	0.450	0.550
F2	0.000	0.100
M	0.450	0.550
K	4.550	4.650
G	0.710	0.810
L	0.600	0.900
θ	0°	5°
X	4.650	4.850
Y	5.250	5.550

***Important Usage Information and Disclaimer**

The specifications of Zhuhai Hypersemi Co., Ltd. products are not guarantees of product characteristics. They reflect typical performance expected in standard applications, which may vary with specific uses. Users must conduct prior testing for their applications and make necessary adjustments.

Users are responsible for the safety of applications utilizing our products and must implement adequate safety measures to prevent physical injury, fire, or other risks in case of product failure. It is the user's duty to ensure that application designs comply with all applicable laws and standards. Our products must not be used in any applications where a product failure could reasonably result in personal injury, unless specifically authorized in a signed document by Zhuhai Hypersemi Co., Ltd.

No representations or warranties are made regarding the accuracy or completeness of this information, including any claims of non-infringement of third-party intellectual property rights. Zhuhai Hypersemi Co., Ltd. assumes no liability for any applications or uses of its products and does not grant any licenses to its intellectual property rights or those of others. We also make no claims regarding non-infringement of third-party intellectual property rights that may arise from applications.

Due to technical requirements, our products may contain hazardous substances. For details, please contact your nearest sales office. This document replaces all previous information and may be updated. We reserve the right to make changes.