

FRED

Ultrafast Soft Recovery Diode, 600V, 15A

Description

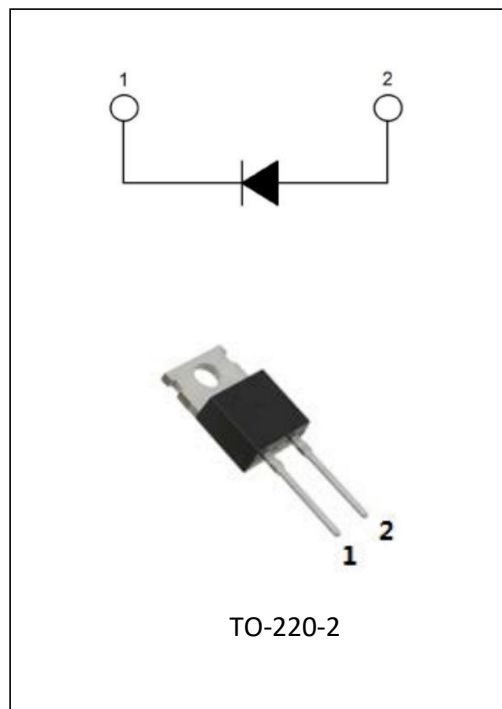
These diodes are optimized to less losses and EMI/RFI in high frequency power conditioning system. The soft recovery character of the diodes offers buffer in most applications. These devices are suited for power converters and other applications where the switching losses are not significant portion of the total losses.

General Features

- ① Ultrafast Recovery
- ② 175°C operating junction temperature
- ③ High frequency operation
- ④ Low IR value
- ⑤ Very Low forward voltage
- ⑥ Epitaxial chip construction

Application

- ① Switched mode power supply
- ② Free wheeling diode, Snubber diode
- ③ UPS



Absolute Maximum Ratings						
Parameter	Symbol	Test Conditions	Values			Units
Repetitive peak reverse voltage	V _{RRM}		600			V
Continuous forward current	I _{F(AV)}	TA=110°C	15			A
Single pulse forward current	I _{FSM}	TA=25°C	135			A
Maximum repetitive forward current	I _{FRM}	Square wave, 20kHz	35			A
Operating junction	T _j		175			°C
Storage temperatures	T _{stg}		-55 to +175			°C
Electrical characteristics (Ta=25°C unless otherwise specified)						
Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Units
Breakdown voltage	V _{BR}	I _R =100μA	600			V
Blocking voltage	V _R					
Forward voltage	V _F	I _F =15 A		1.30	1.60	V
		I _F =15 A, T _j =125°C		1.20	1.50	V
Reverse leakage current	I _R	V _R = V _{RRM}			20	μA
		T _j =150°C, V _R =600V			200	μA
Reverse recovery time	trr	I _F =0.5A, I _R =1A, I _{RR} =0.25A			35	ns
		I _F =1A, V _R =30V, di/dt =200A/us		25	35	ns

Thermal characteristics

Parameter	Symbol	Typ	MAX	Units
Junction-to-Case	R_{thJC}	-	2.8	$^{\circ}\text{C}/\text{W}$

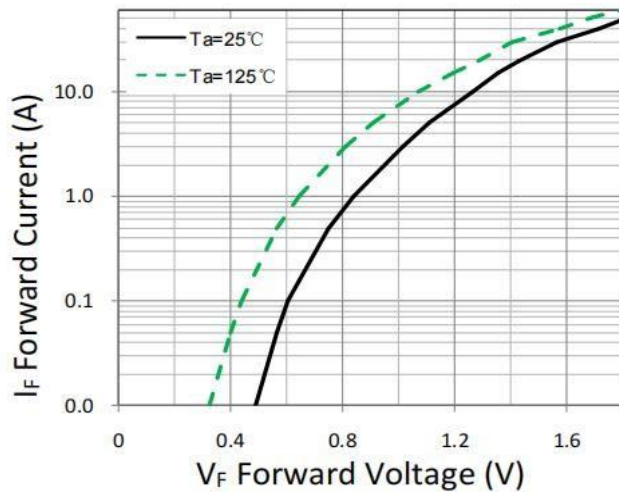


Figure 1. Forward Characteristic(typ.)

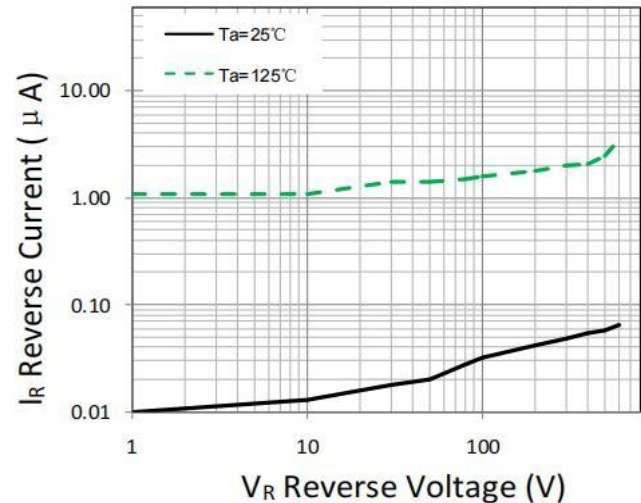
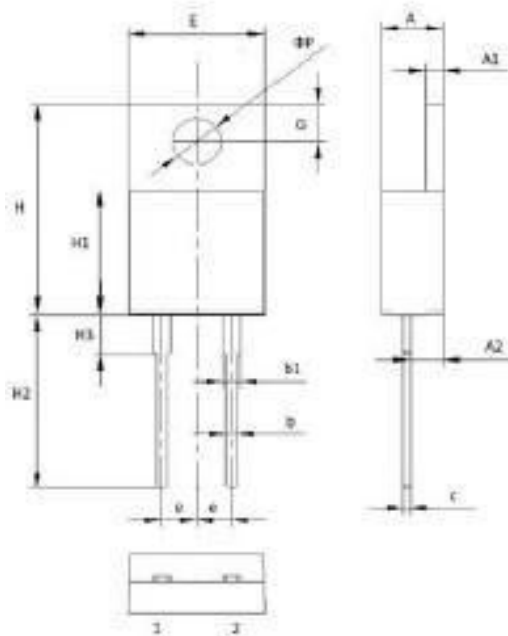


Figure 2. Reverse Characteristic (typ.)

Package Information

TO-220-2 PACKAGE



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.30	4.70
A1	1.17	1.37
A2	2.20	2.60
b	0.60	1.00
b1	1.17	1.37
c	0.30	0.70
e	2.34	2.74
E	9.70	10.10
H	15.50	15.90
H1	9.00	9.40
H2	12.58	13.58
H3	2.80	3.20
G	2.60	3.00
ΦP	3.40	3.80



迈诺斯科技

MUR1560G

NOTE:

Exceeding the maximum ratings of the device in performance may cause damage to the device, even the permanent failure, which may affect the dependability of the machine. Please do not exceed the absolute maximum ratings of the device when circuit designing.

1. When installing the heat sink, please pay attention to the torsional moment and the smoothness of the heat sink.
2. MOSFETs is the device which is sensitive to the static electricity, it is necessary to protect the device from being damaged by the static electricity when using it.
3. Shenzhen Minos reserves the right to make changes in this specification sheet and is subject to change without prior notice.

CONTACT:

深圳市迈诺斯科技有限公司（总部）

地址：深圳市福田区华富街道田面社区深南中路4026号田面城市大厦22B-22C

邮编：518025

电话：0755-83273777