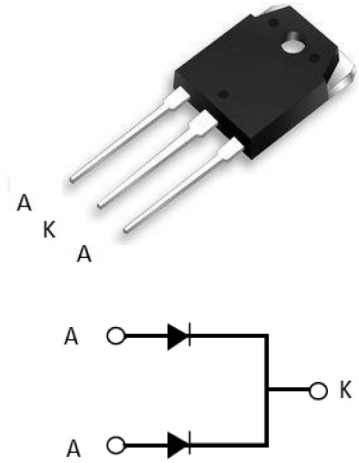


Ultra Fast Recovery Diode, 30A



Product Summary	
V _R	200 V
I _{F(AV)}	2*15A
t _{rr}	17 ns

Features

- Ultra fast soft recovery
- 175° C operating junction temperature
- High frequency operation
- Low power loss, less RFI and EMI
- Low I_R value
- High surge capacity
- Planar epitaxial chip construction

Applications

- Welder
- Switching mode power supplies
- UPS
- DC/DC converters
- Free wheeling diodes
- Inverters
- Motor drives

Description

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

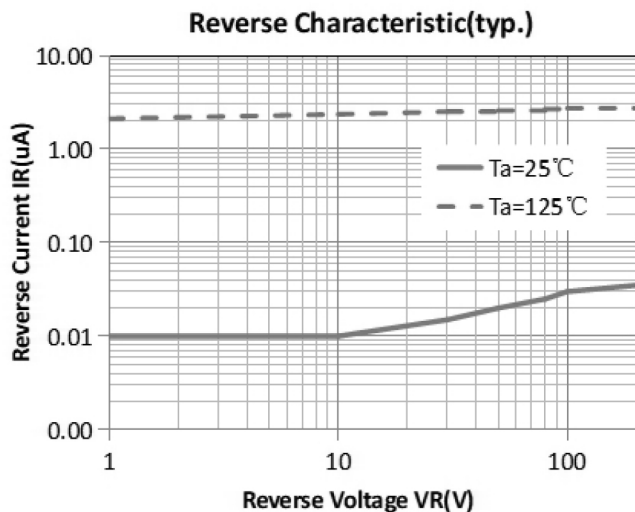
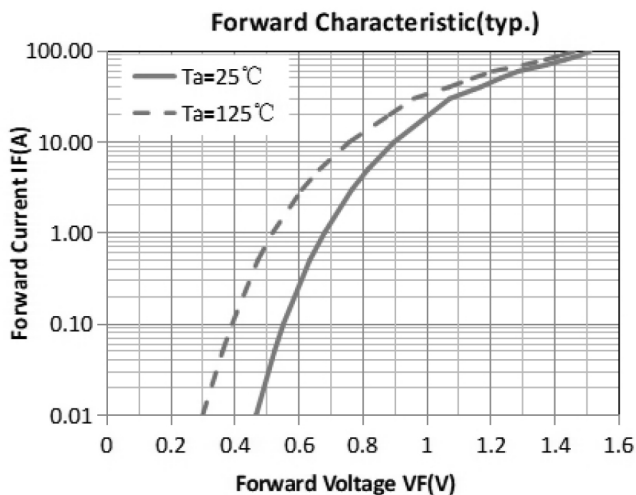
Absolute Maximum Ratings				
Parameter		Test Conditions	Values	Units
Repetitive peak reverse voltage	V _{RRM}		200	V
Continuous forward current	I _{F(AV)}	T _c =110° C	30	A
Single pulse forward current	I _{FSM}	T _c =25° C	200	
Maximum repetitive forward current	I _{FRM}	Square wave, 20kHz	50	
Operating 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 Blocking voltage	V_{BR}, V_R	$I_R=100\mu A$	200			V
Forward voltage (Per Diode)	V_F	$I_F=15 A$		0.90	0.96	
		$I_F=12.5 A, T_j =125^\circ C$		0.75	0.86	
Reverse leakage current(Per Diode)	I_R	$V_R= V_{RRM}$			10	μA
		$T_j=150^\circ C, V_R=200V$			100	
Reverse recovery time(Per Diode)	t_{rr}	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		25	35	ns
		$I_F=1A, V_R=30V, di/dt =200A/us$		17	30	

Thermal characteristics

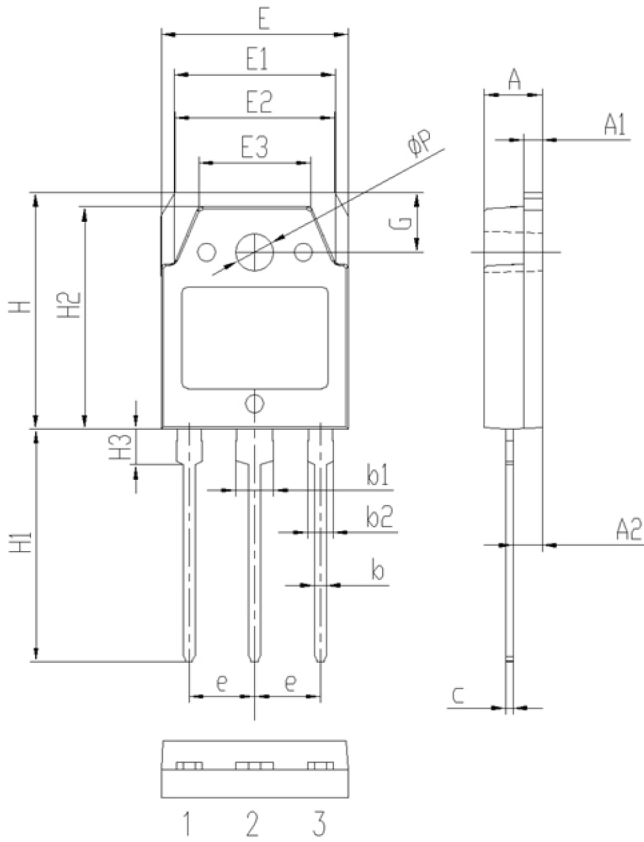
Paramter	Symbol	Typ	Units
Junction-to-Case	$R_{\theta JC}$	0.8	$^\circ C/W$

Electrical performance (typic)



Package Information

TO-3PN PACKAGE



Symbol	Dimensions(millimeters)	
	Min.	Max.
A	4.60	5.00
A1	1.30	1.70
A2	2.20	2.60
b	0.80	1.20
b1	2.90	3.30
b2	1.90	2.30
c	0.40	0.80
e	5.25	5.65
E	15.3	15.7
E1	13.2	13.6
E2	13.1	13.5
E3	9.10	9.50
H	19.7	20.1
H1	19.1	20.1
H2	18.3	18.7
H3	2.80	3.20
G	4.80	5.20
ΦP	3.00	3.40

Notice