



Features

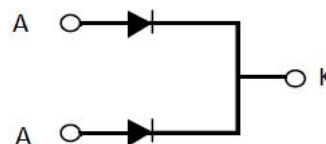
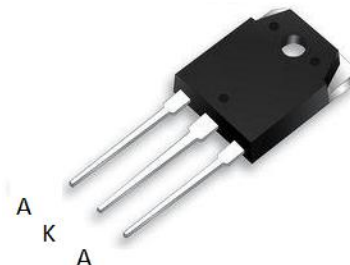
- Adopt FRED chip
- Low forward Voltage drop
- Fast reverse recovery time
- High frequency operation
- High purity, high temperature epoxy encapsulation for enhanced mechanical strength and moisture resistance
- Guard ring for enhanced ruggedness and long term reliability

Typical Applications

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

Mechanical Data

- **Package:** TO-3P
Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant
- **Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- **Polarity:** As marked



TYPE	V _{RSM} V	V _{RRM} V
MUR8030P3T	300	300

■Maximum Ratings (T_j=25°C Unless otherwise specified)

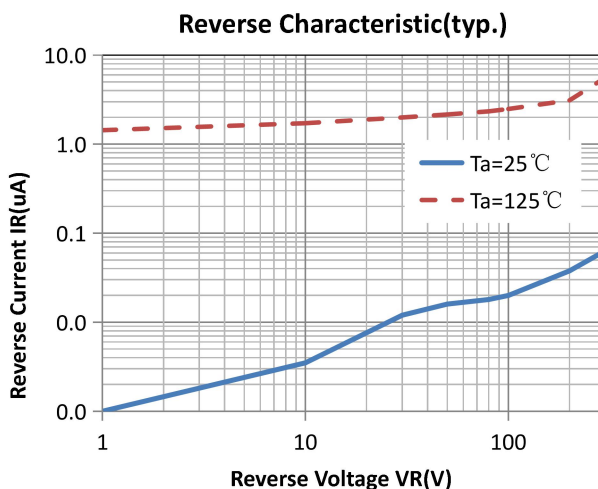
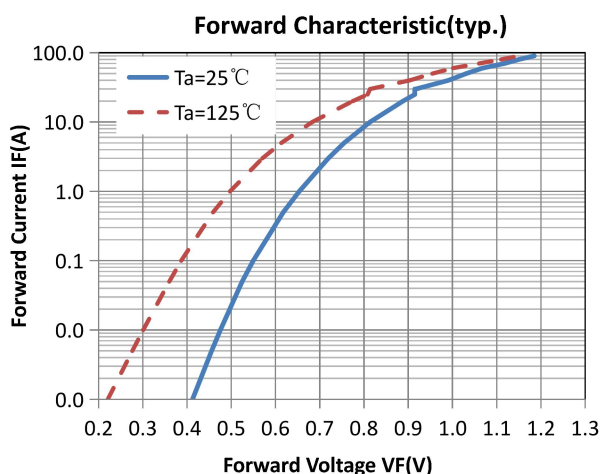
Absolute Maximum Ratings				
Parameter	Symbol	Test Conditions	Values	Units
Repetitive peak reverse voltage	V _{RRM}		300	V
Continuous forward current	I _{F(AV)}	T _c =110°C	80	A
Single pulse forward current	I _{FSM}	T _c =25°C	640	
Maximum repetitive forward current	I _{FRM}	Square wave, 20kHz	250	
Operating junction	T _j		175	°C
Storage temperatures	T _{stg}		-55 to +175	°C

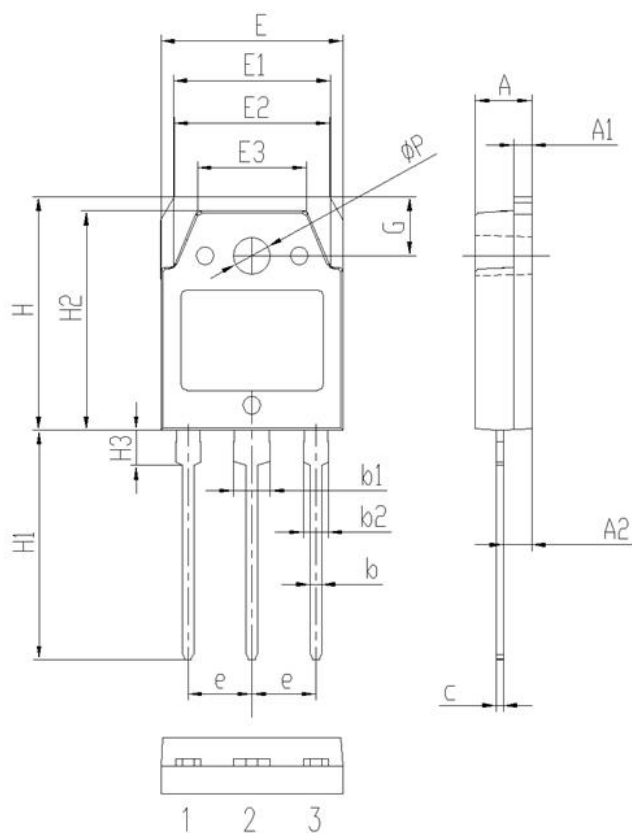
Electrical characteristics (Ta=25°C unless otherwise specified)						
Parameter	Symbol	Test Conditions	Min	Typ.	Max.	Units
Breakdown voltage Blocking voltage	V_{BR} , V_R	$I_R=100\mu A$	300			V
Forward voltage (Per Diode)	V_F	$I_F=40 A$		1.0	1.20	
		$I_F=40 A, T_j=125^\circ C$		0.90	1.00	
Reverse leakage current(Per Diode)	I_R	$V_R=V_{RRM}$			10	μA
		$T_j=150^\circ C, V_R=300V$			100	
Reverse recovery time(Per Diode)	t_{rr}	$I_F=0.5A, I_R=1A, I_{RR}=0.25A$		35	40	ns
		$I_F=1A, V_R=30V, di/dt=200A/\mu s$		26	35	

Thermal characteristics

Paramter	Symbol	Typ	Units
Junction-to-Case	$R_{\theta JC}$	0.7	$^\circ C/W$

Electrical performance (typic)



■ Outline Dimensions
TO-3P


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

Packge	Packing	Box Size L×W×H(mm)	Quatity(pcs/box)	Carton Size L×W×H(mm)	Quatity(pcs/carton)
TO - 3P	30pcs/Tube	570×155×50	450	580×340×125	1800