SEMICONDUCTOR

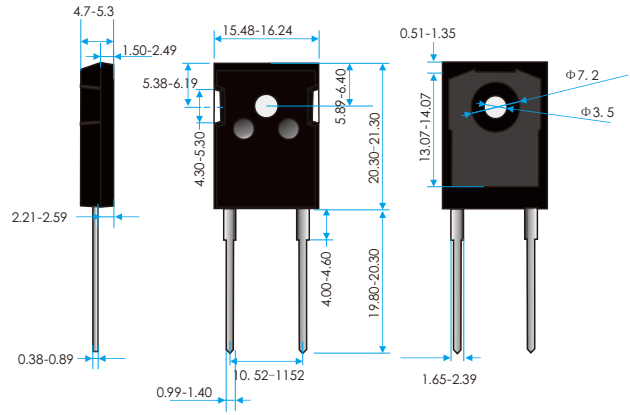
MUR3060P

ULTRAFAST RECOVERY RECTIFIER
Reverse Voltage - 600 Volts
Forward Current - 30.0Amperes

FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fred Chip Planar Construction
- Low forward voltage drop
- Ultrafast Recovery Time
- Soft Recovery Characteristics
- For use in free wheeling, snubber, clamp, inversion welder, PFC, Plating Power Supply
- High temperature soldering guaranteed:260°C/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2011/65/EU

TO-247AC



Dimensions in millimeters

MECHANICAL DATA

- Case: TO-247AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

ABSOLUT MAXIMUM RATINGS (T_C=25°C unless otherwise specified)

Symbol	Parameter/Test Conditions		Values	Unit
V_R	Maximum DC blocking voltage		600	V
V_{RRM}	Maximum repetitive peak reverse voltage		600	V
$I_{F(AV)}$	Average forward current	T_C=110°C	30	A
$I_{F(RMS)}$	RMS forward current	T_C=110°C	42	A
I_{FSM}	NON Repetitive Surge Forward Current	T_j=45°C, t=10ms, 50HZ, Sine	300	A
P_D	Power Dissipation		156	W
T_J	Junction temperature		-55 to+150	°C
T_{STG}	Storage temperature range		-55 to+150	°C
Torque	Module to Sink		1.1	Nm
$R_{\theta JC}$	Junction to Case Thermal Resistance		0.44	°C/W

RATINGS AND CHARACTERISTIC OF MUR3060P

ELECTRICAL CHARACTERISTICS (T_C=25°C unless otherwise specified)

Symbol	Parameter/Test Conditions		Min.	Typ.	Max.	Unit
I_{RM}	Maximum Reverse Leakage Current	V_R=600V	–	–	5	μA
I_{RM}	Maximum Reverse Leakage Current	V_R=600V, T_J=125°C	–	–	250	μA
V_F	Forward Voltage	I_F=30A	–	1.5	1.8	V
V_F	Forward Voltage	I_F=30A, T_J=125°C	–	1.3	–	V
trr	Reverse Recovery Time (I_F=1A, dI_F/dt=-200A/μs, V_R=30V)		–	32	–	ns
trr	Reverse Recovery Time	I_F=30A, V_R=300V dI_F/dt=-200A/μs	–	50	–	ns
I_{RRM}	Maximum Reverse Recovery Current		–	4.2	–	A
trr	Reverse Recovery Time	I_F=30A, V_R=300V dI_F/dt=-200A/μs, T_J=125°C	–	130	–	ns
I_{RRM}	Maximum Reverse Recovery Current		–	9	–	A

FIG.1-Forward Voltage Drop vs Forward Current

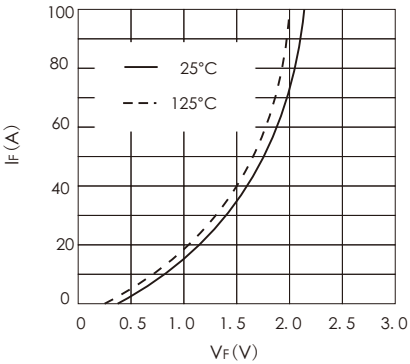
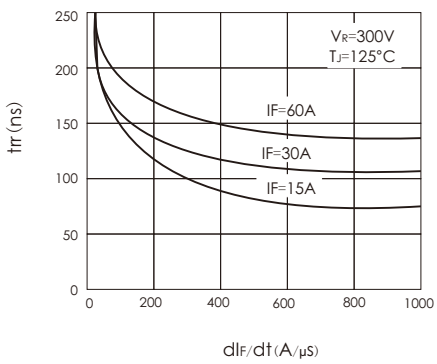


FIG.2-Reverse Recovery Time vs dI_F/dt



RATINGS AND CHARACTERISTIC OF MUR3060P

FIG.3-Reverse Recovery Current vs dI_F/dt

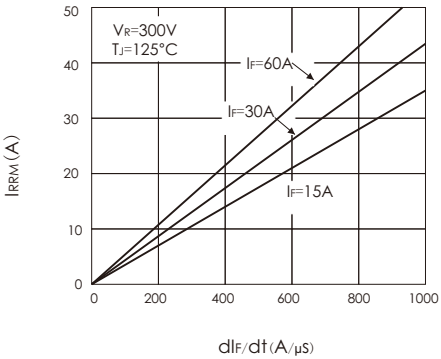


FIG.4-Reverse Recovery Charge vs dI_F/dt

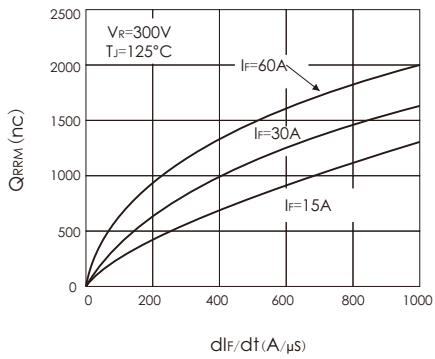


FIG.5-DynamicParameters vs Junction Temperature

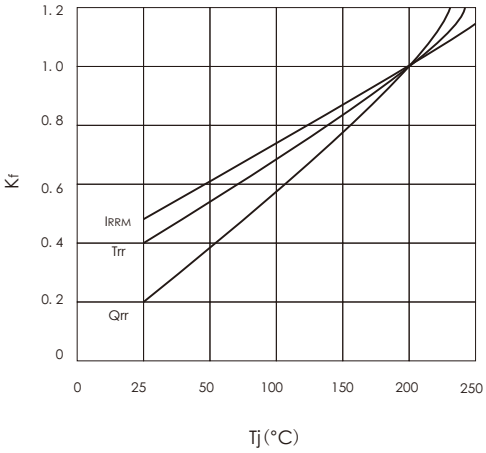


FIG.6–Transient Thermal Impendance