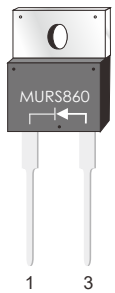
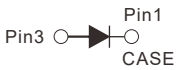
MURS860

ULTRAFAST RECOVERY RECTIFIERS

Reverse Voltage - 600 Volts
Forward Current - 8.0Amperes

TO-220AC





FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Ultrafast recovery time, Soft recovery characteristics
- Low recovery loss, Low forward voltage
- Low leakage current
- High surge current capability
- For use in freewheeling, snubber, clamp, inversion welder, PFC, plating power supply, ultrasonic cleaner and welder, converter & chopper
- High temperature soldering guaranteed:260℃/10 seconds, 0.25"(6.35mm)from case
- Component in accordance to RoHS 2015/863/EU

MECHANICAL DATA

- Case: JEDEC TO-220AC molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

(Ratings at 25 ℃ ambient temperature unless otherwise specified)

Parameters	Symbols	Test Conditions	Values					Units
Maximum repetitive peak reverse voltage	V_{RRM}		600					Volts
Power Dissipation	P_D		50					W
Maximum DC blocking voltage	V_{DC}		600					Volts
Maximum average forward rectified current	$I_{(AV)}$		8.0					Amps
Non-Repetitive Surge Forward Current	I_{FSM}	Tj=45℃,t=10ms,50Hz,sine	110					Amps
Forward Voltage	V_F	I_F=8A	TYP	2.0	MAX	2.3		Volts
		I_F=8A,Tj=125℃	TYP	1.5	MAX	1.8		Volts
Reverse Leakage Current	I_R	Tj=25℃	5					μA
		Tj=125℃	250					
Typical thermal resistance	$R_{\theta JC}$		2.5					℃/W
Operating junction temperature range	T_J		-55 to+175					℃
Storage temperature range	T_{STG}		-55 to+175					℃
Max Reverse Recovery Current	I_{RRM}	V_R=300V, I_F=8A, diF/dt=200A/μs, Tj=25℃	2.3					Amps
Reverse Recovery Time	Trr		30					ns
Max Reverse Recovery Current	I_{RRM}	V_R=300V, I_F=8A, diF/dt=200A/us, Tj=125℃	4.8					Amps
Reverse Recovery Time	Trr		60					ns
Reverse Recovery Time	Trr	I_F=1A,V_R=30V, diF/dt=200A/μs	17					ns

RATINGS AND CHARACTERISTIC CURVES

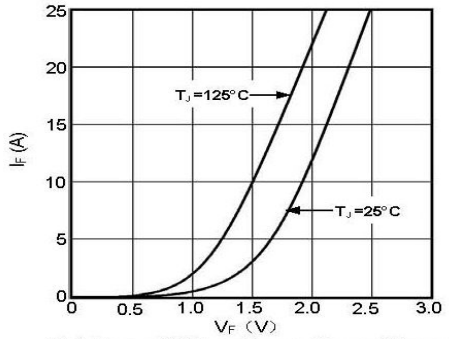


Fig1. Forward Voltage Drop vs Forward Current

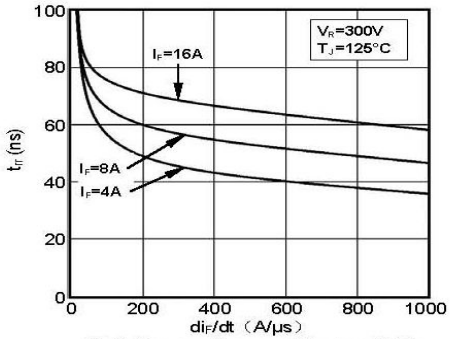


Fig2. Reverse Recovery Time vs di_F/dt

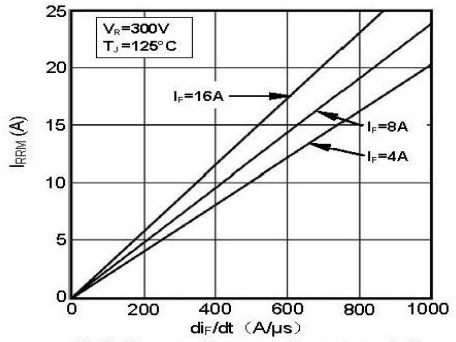


Fig3. Reverse Recovery Current vs di_F/dt

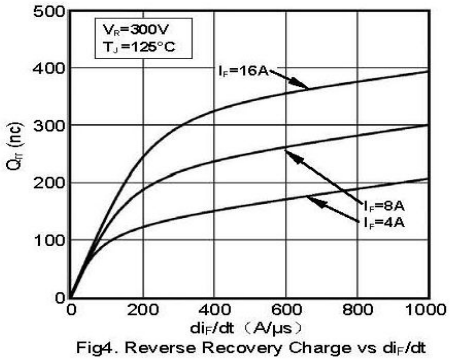


Fig4. Reverse Recovery Charge vs di_F/dt

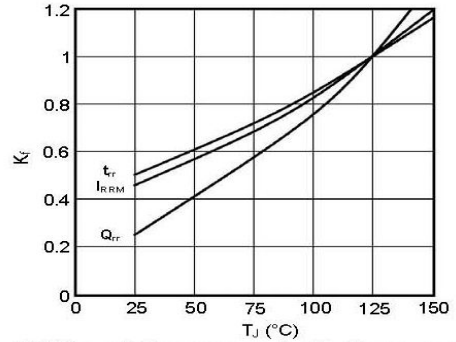


Fig5. Dynamic Parameters vs Junction Temperature

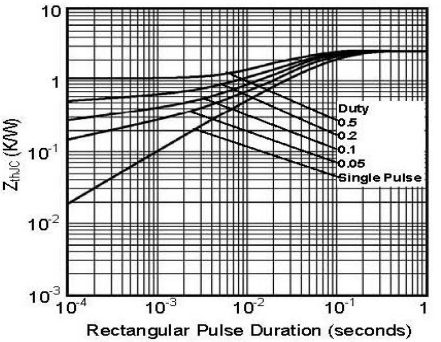


Fig6. Transient Thermal Impedance

RATINGS AND CHARACTERISTIC CURVES

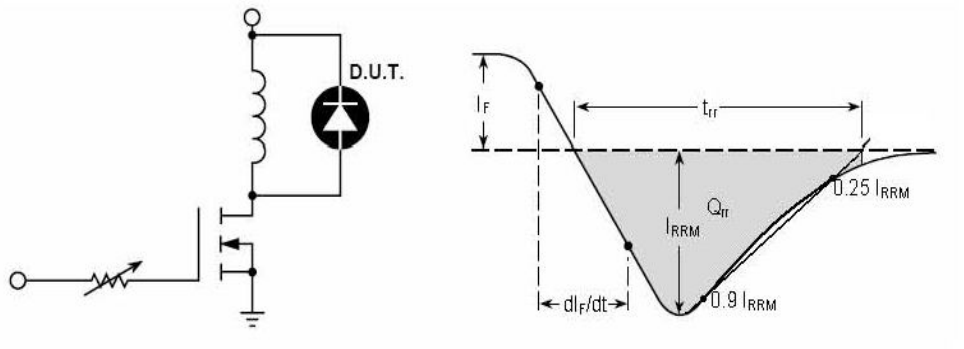


Fig7. Diode Reverse Recovery Test Circuit and Waveform

PACKAGE OUTLINE DIMENSIONS

TO-220AC