GOOD-ARK
SEMICONDUCTOR

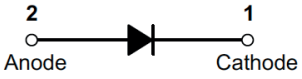
GSMURFS860

Super Fast Recovery Rectifier
Reverse Voltage 600V Forward Current 8A

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°C/10 seconds, 0.25" (6.35mm) from case
- Component in accordance to RoHS 2015/863/EU

ITO-220AC



Schematic Diagram

Mechanical Data

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

Maximum Ratings (Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbols	Values	Unit
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	600	V
Power Dissipation	P_D	50	W
Maximum DC Blocking Voltage	V_{DC}	600	V
Maximum Average Forward Rectified Current	$I_{(AV)}$	8.0	A
Typical Thermal Resistance, Junction to Case	$R_{\theta JC}$	2.5	℃/W
Operating Junction Temperature Range	T_J	-55 to +175	℃
Storage Temperature Range	T_{STG}	-55 to +175	℃

Electrical Characteristics (Ratings at 25°C ambient temperature unless otherwise specified)

Parameters	Symbols	Test Conditions	Typ	Max	Unit
Forward Voltage	V_F	I_F=8A	2.0	2.3	V
		I_F=8A, T_J=125℃	1.5	1.8	V
Non-Repetitive Surge Forward Current	I_{FSM}	T_J=45℃, t=10ms, 50Hz, sine	-	110	A
Reverse Leakage Current	I_R	T_J=25℃	-	5.0	μA
		T_J=125℃	-	250	
Reverse Recovery Current	I_{RRM}	V_R=300V, I_F=8A, di_F/dt=200A/μs, T_J=25℃	-	2.3	A
Reverse Recovery Time	T_{rr}		-	30	nS
Reverse Recovery Current	I_{RRM}	V_R=300V, I_F=8A, di_F/dt=200A/us, T_J=125℃	-	4.8	A
Reverse Recovery Time	T_{rr}		-	60	nS
Reverse Recovery Time	T_{rr}	I_F=1A, V_R=30V, di_F/dt=200A/μs	-	17	nS

Ratings and Characteristics Curves

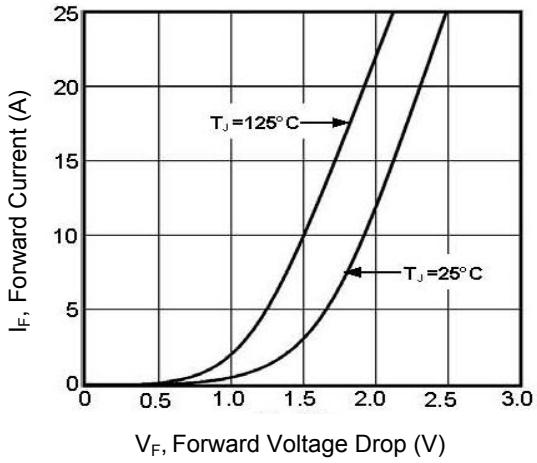


Figure 1. Forward Voltage Drop vs. Forward Current

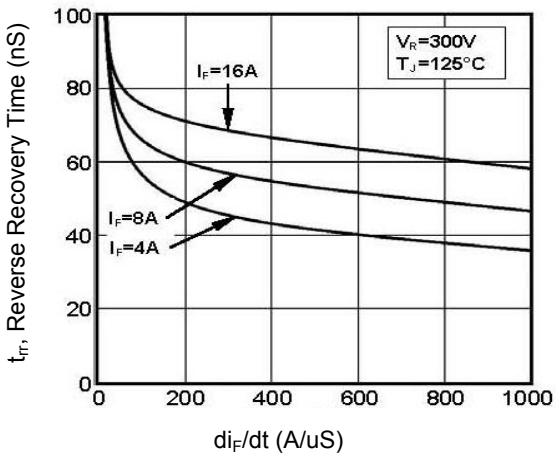


Figure 2. Reverse Recovery Time vs. di_F/dt

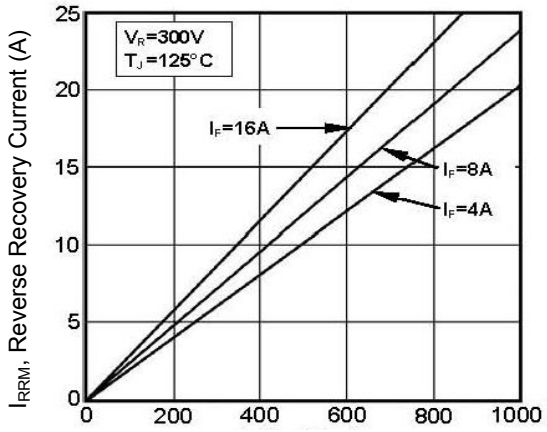


Figure 3. Reverse Recovery Current vs. di_F/dt

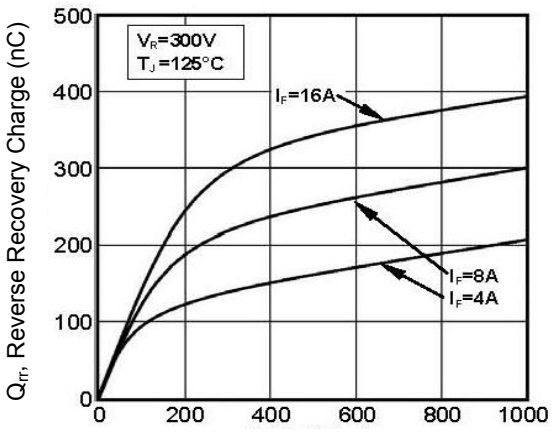


Figure 4. Reverse Recovery Charge vs. di_F/dt

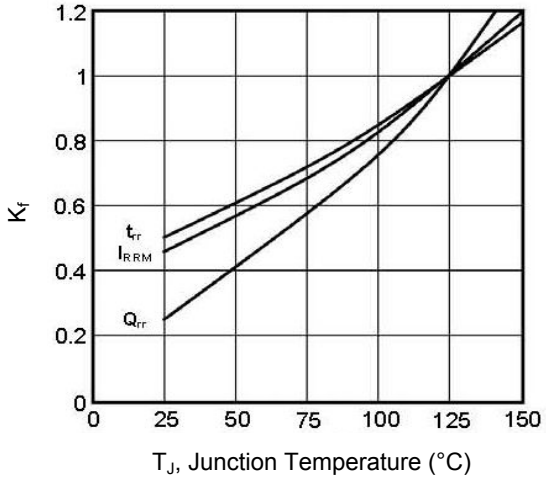


Figure 5. Dynamic Parameters vs. Junction Temperature

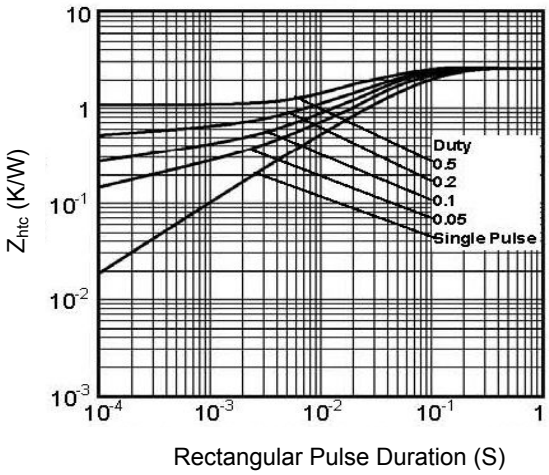


Figure 6. Transient Thermal Impedance

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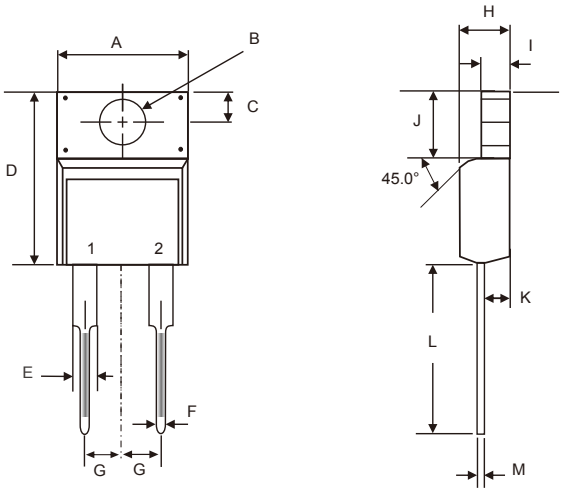
Package Outline Dimensions (ITO-220AC)



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	9.91	10.41	0.390	0.410
B	3.15	3.45	0.124	0.132
C	3.05	3.45	0.120	0.136
D	15.40	16.40	0.606	0.646
E	1.10	1.43	0.043	0.056
F	0.67	0.93	0.026	0.037
G	2.44	2.64	0.096	0.104
H	4.49	4.89	0.177	0.192
I	2.28	2.88	0.090	0.113
J	6.45	6.85	0.254	0.270
K	2.50	2.90	0.098	0.114
L	12.50	13.50	0.492	0.531
M	0.37	0.63	0.015	0.025

Order Information

Device	Package	Marking	Carrier	Quantity
GSMURFS860	ITO-220AC	MURFS860	Tube	50pcs / Tube