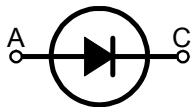
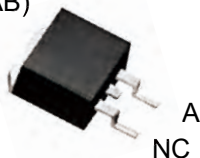


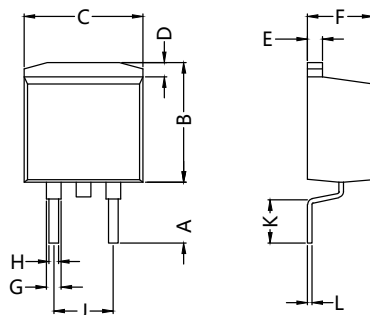
MUR860S

Ultra Fast Recovery Diodes

C(TAB)



Dimensions TO-263(D²PAK)



Dim.	Millimeter		Dim.	Millimeter	
	Min.	Max.		Min.	Max.
A	9.80	10.60	D2	2.30	3.30
B	15.40	16.40	E	5.08BSC	
B1	6.00	7.40	F	14.50	16.00
B2	3.20	3.80	ØG	2.90	3.40
C	12.80	13.50	H	0.60	1.00
C1	3.20	4.00	H1	1.15	1.55
D	4.35	4.95	J	0.35	0.65
D1	2.24	2.84	K	0.00	1.60



A=Anode, NC= No connection, TAB=Cathode

	V _{RSM} V	V _{RRM} V
MUR860S	600	600

Symbol	Test Conditions	Maximum Ratings	Unit
I _{FRMS} I _{FAVM} I _{FRM}	T _{VJ} =T _{VJM} T _C =115°C; rectangular, d=0.5 t _p <10µs; rep. rating, pulse width limited by T _{VJM}	16 8 130	A
I _{FSM}	T _{VJ} =45°C t=10ms (50Hz), sine t=8.3ms (60Hz), sine	100 110	A
	T _{VJ} =150°C t=10ms(50Hz), sine t=8.3ms(60Hz), sine	85 95	
I ² t	T _{VJ} =45°C t=10ms (50Hz), sine t=8.3ms (60Hz), sine	50 50	A ² s
	T _{VJ} =150°C t=10ms(50Hz), sine t=8.3ms(60Hz), sine	36 37	
T _{VJ} T _{VJM} T _{stg}		-40...+150 150 -40...+150	°C
P _{tot}	T _C =25°C	50	W
M _d	mounting torque	0.4...0.6	Nm
Weight		2	g

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Symbol	Test Conditions	Characteristic Values		Unit
		typ.	max.	
I_R	$T_{VJ}=25^{\circ}\text{C}; V_R=V_{RRM}$		20	μA
	$T_{VJ}=25^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$		10	μA
	$T_{VJ}=125^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$		1.5	mA
V_F	$I_F=8\text{A}; T_{VJ}=150^{\circ}\text{C}$ $T_{VJ}=25^{\circ}\text{C}$		1.3 1.5	V
V_{TO}	For power-loss calculations only		0.98	V
r_T	$T_{VJ}=T_{VJM}$		28.7	$\text{m}\Omega$
R_{thJC} R_{thCK} R_{thJA}		0.5	2.5 60	K/W
t_{rr}	$I_F=1\text{A}; -di/dt=50\text{A}/\mu\text{s}; V_R=30\text{V}; T_{VJ}=25^{\circ}\text{C}$	35	50	ns
I_{RM}	$V_R=350\text{V}; I_F=8\text{A}; -di_F/dt=64\text{A}/\mu\text{s}; L \leq 0.05\mu\text{H}; T_{VJ}=100^{\circ}\text{C}$	2.5	2.8	A

FEATURES

- * International standard package JEDEC TO-263
- * Glass passivated chips
- * Very short recovery time
- * Extremely low switching losses
- * Low I_{RM} -values
- * Soft recovery behaviour
- * RoHS compliance

APPLICATIONS

- * Antiparallel diode for high frequency switching devices
- * Antisaturation diode
- * Snubber diode
- * Free wheeling diode in converters and motor control circuits
- * Rectifiers in switch mode power supplies (SMPS)
- * Inductive heating and melting
- * Uninterruptible power supplies (UPS)
- * Ultrasonic cleaners and welders

ADVANTAGES

- * High reliability circuit operation
- * Low voltage peaks for reduced protection circuits
- * Low noise switching
- * Low losses
- * Operating at lower temperature or space saving by reduced cooling

Marking

MUR860S
(TO-263)



Ordering Information

Part Number	Package	Shipping	Marking Code
MUR860S	TO-263	50pcs / Tube or 800pcs / Tape & Reel or 1000pcs / Tape & Reel	MUR860S

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MUR860S

Ultra Fast Recovery Diodes

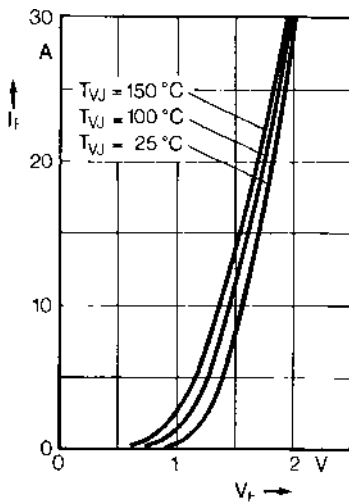


Fig. 1 Forward current versus voltage drop.

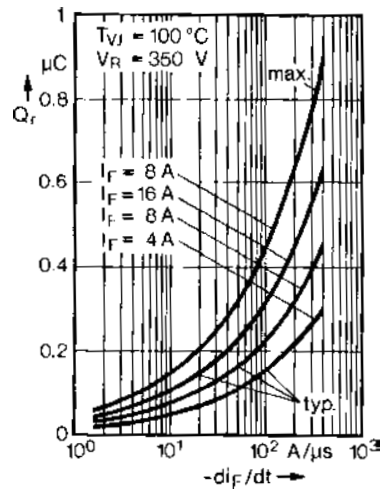


Fig. 2 Recovery charge versus $-di_F/dt$.

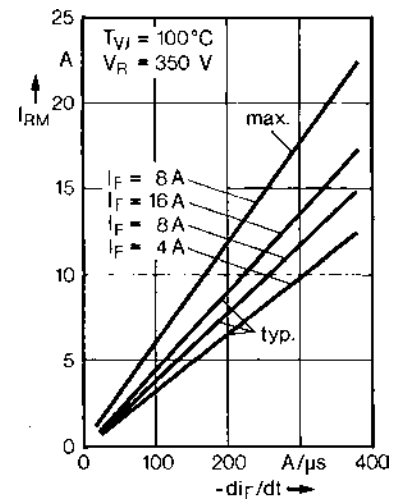


Fig. 3 Peak reverse current versus $-di_F/dt$.

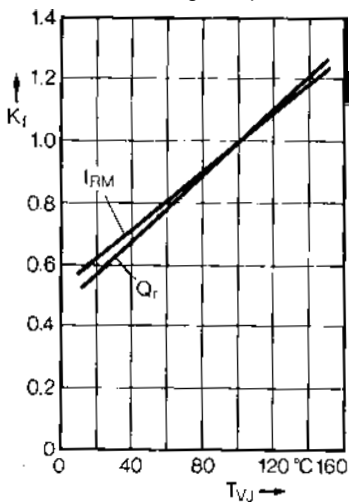


Fig. 4 Dynamic parameters versus junction temperature.

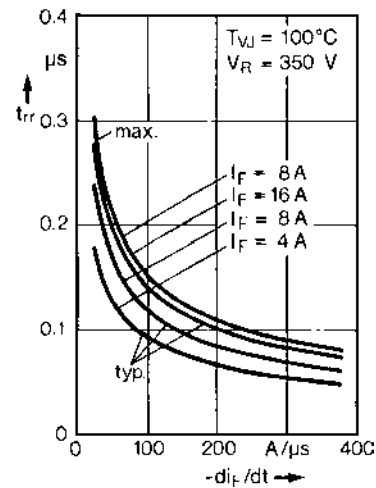


Fig. 5 Recovery time versus $-di_F/dt$.

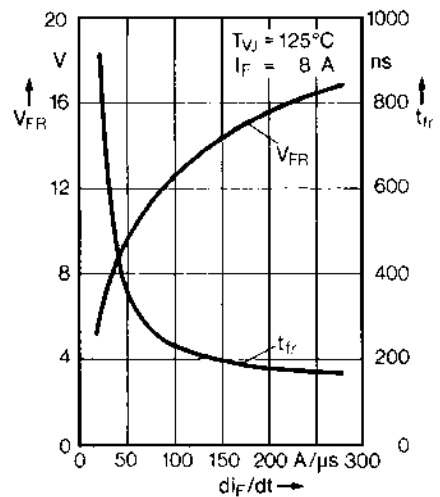


Fig. 6 Peak forward voltage versus di_F/dt .

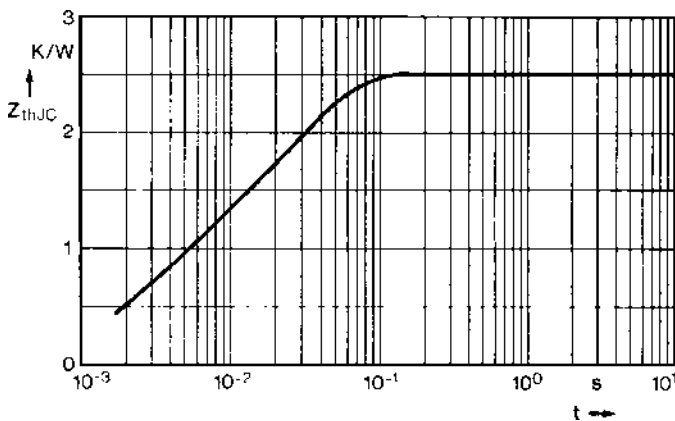


Fig. 7 Transient thermal impedance junction to case.

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