

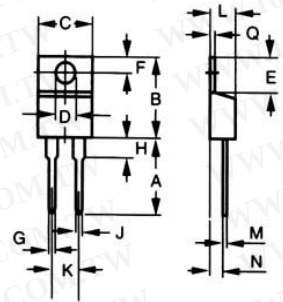
MUR560

Ultra Fast Recovery Diodes

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Dimensions TO-220AC



Dim.	Inches		Milimeter	
	Min.	Max.	Min.	Max.
A	0.500	0.580	12.70	14.73
B	0.560	0.650	14.23	16.51
C	0.380	0.420	9.66	10.66
D	0.139	0.161	3.54	4.08
E	2.300	0.420	5.85	6.85
F	0.100	0.135	2.54	3.42
G	0.045	0.070	1.15	1.77
H	-	0.250	-	6.35
J	0.025	0.035	0.64	0.89
K	0.190	0.210	4.83	5.33
L	0.140	0.190	3.56	4.82
M	0.015	0.022	0.38	0.56
N	0.080	0.115	2.04	2.49
Q	0.025	0.055	0.64	1.39

A=Anode, C=Cathode, TAB=Cathode

	V_{RSM}	V_{RRM}
	V	V
MUR560	600	600

Symbol	Test Conditions	Maximum Ratings	Unit
IFRMS	$T_{VJ}=T_{VJM}$	14	A
IFAVM	$T_C=115^{\circ}\text{C}$; rectangular, $d=0.5$	5	
IFRM	$t_p<10\mu\text{s}$; rep. rating, pulse width limited by T_{VJM}	110	
IFSM	$T_{VJ}=45^{\circ}\text{C}$	$t=10\text{ms}$ (50Hz), sine	A
		$t=8.3\text{ms}$ (60Hz), sine	
	$T_{VJ}=150^{\circ}\text{C}$	$t=10\text{ms}$ (50Hz), sine	
		$t=8.3\text{ms}$ (60Hz), sine	
I²t	$T_{VJ}=45^{\circ}\text{C}$	$t=10\text{ms}$ (50Hz), sine	A ² s
		$t=8.3\text{ms}$ (60Hz), sine	
	$T_{VJ}=150^{\circ}\text{C}$	$t=10\text{ms}$ (50Hz), sine	
		$t=8.3\text{ms}$ (60Hz), sine	
T_{VJ}		-40...+150	$^{\circ}\text{C}$
T_{VJM}		150	
T_{stg}		-40...+150	
P_{tot}	$T_C=25^{\circ}\text{C}$	50	W
M_d	Mounting torque	0.4...0.6	Nm
Weight		2	g

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Symbol	Test Conditions	Characteristic Values	Unit
I_R	$T_{VJ}=25^{\circ}\text{C}; V_R=V_{RRM}$	10	μA
	$T_{VJ}=25^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$	5	μA
	$T_{VJ}=125^{\circ}\text{C}; V_R=0.8 \cdot V_{RRM}$	1.0	mA
V_F	$I_F=5\text{A}; T_{VJ}=150^{\circ}\text{C}$	1.3	V
	$T_{VJ}=25^{\circ}\text{C}$	1.6	
V_{TO}	For power-loss calculations only	0.98	V
r_T	$T_{VJ}=T_{VJM}$	28.7	$\text{m}\Omega$
R_{thJC}		2.5	K/W
R_{thCK}		0.5	
R_{thJA}		3.0	
t_{rr}	$I_F=1\text{A}; -di/dt=50\text{A}/\mu\text{s}; V_R=30\text{V}; T_{VJ}=25^{\circ}\text{C}$	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	A

FEATURES

- * International standard package JEDEC TO-220AC
- * Very short recovery time
- * Extremely low switching losses
- * Low I_{RM} -values

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

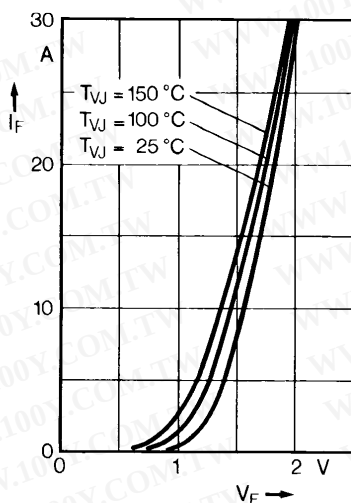


Fig. 1 Forward current versus voltage drop.

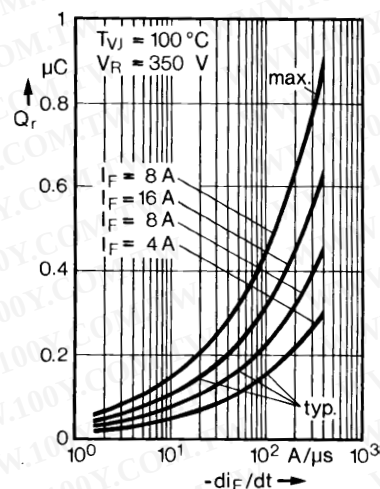


Fig. 2 Recovery charge versus $-di_F/dt$.

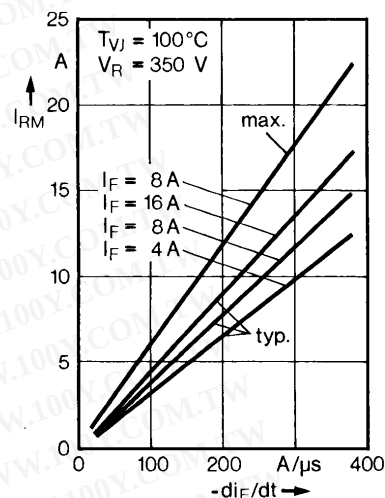


Fig. 3 Peak reverse current versus $-di_F/dt$.

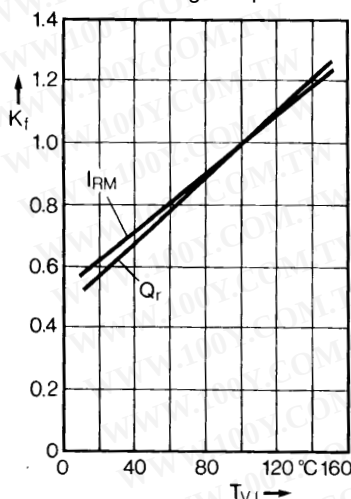


Fig. 4 Dynamic parameters versus junction temperature.

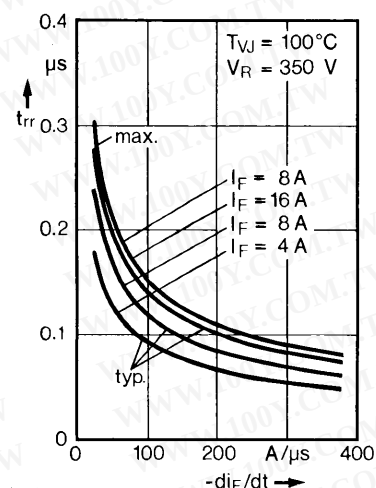


Fig. 5 Recovery time versus $-di_F/dt$.

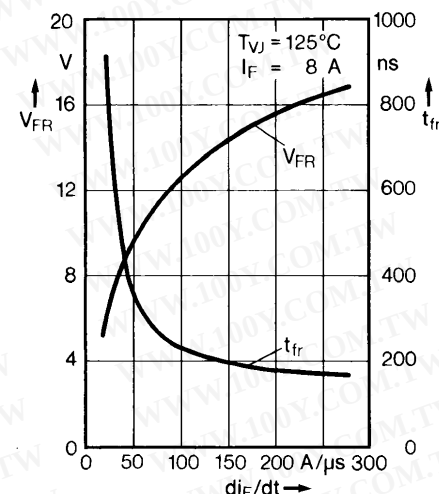


Fig. 6 Peak forward voltage versus di_F/dt .

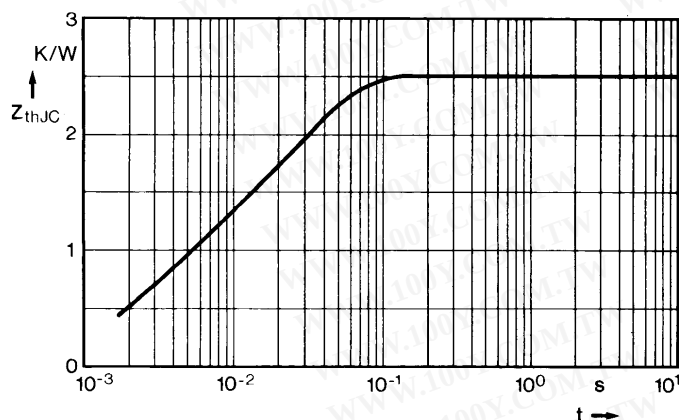


Fig. 7 Transient thermal impedance junction to case.

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