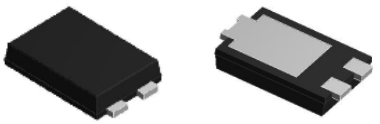
TO- 277 Plastic-Encapsulate Diodes

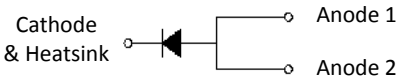
SUPER FAST RECOVER RECTIFIER

FEATURES

- Ultrafast 35ns Recovery Times
- High Voltage Capability to 400V
- Low Reverse Leakage Current

TO-277





Marking

- **MUR560**

MAIN CHARACTERISTICS

I_O	5A
V_{RRM}	600V
T_j	150 ℃
$V_{F(typ)}$	1.5V（@Tj=125℃）

MAXIMUM RATINGS (T_a=25℃ unless otherwise noted)

Symbol	Parameter	KMUR 560	Unit
V_{RRM}	Peak repetitive reverse voltage	600	V
V_{RWM}	Working peak reverse voltage		
V_R	DC blocking voltage		
$V_{R(RMS)}$	RMS reverse voltage	420	V
I_O	Average rectified output current@ Total device	5	A
I_{FSM}	Non-Repetitive peak forward surge current 8.3ms half sine wave	90	A
$R_{\Theta JC}$	Typical thermal resistance	3.5	℃/W
$R_{\Theta JA}$	Thermal resistance from junction to ambient	52.5	
T_j	Operating Junction Temperature Range	-55 ~ +150	℃
T_{stg}	Storage Temperature Range	-55 ~ +150	℃

ELECTRICAL CHARACTERISTICS (T_a=25℃ unless otherwise specified)

Parameter	Symbol	Test conditions		Min	Typ	Max	Unit
Reverse voltage	$V_{(BR)}$	I_R=100uA		600			V
Reverse current	I_R	V_R=600V	Tj =25℃		0.5	2	uA
			Tj =125℃		2.0		uA
Forward voltage	V_F	I_F=5.0A	Tj =25℃		1.4	1.65	V
			Tj =125℃			1.50	V
Typical total capacitance	C_{tot}	V_R=4.0V,f=1MHz			42		pF
Reverse recovery time	t_{rr}	I_F= 0.5A, I_R=1A,I_{rr}=0.25A				35	ns

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

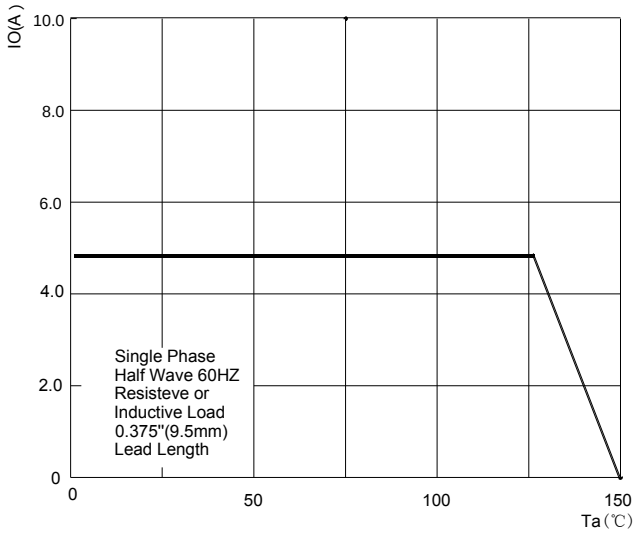
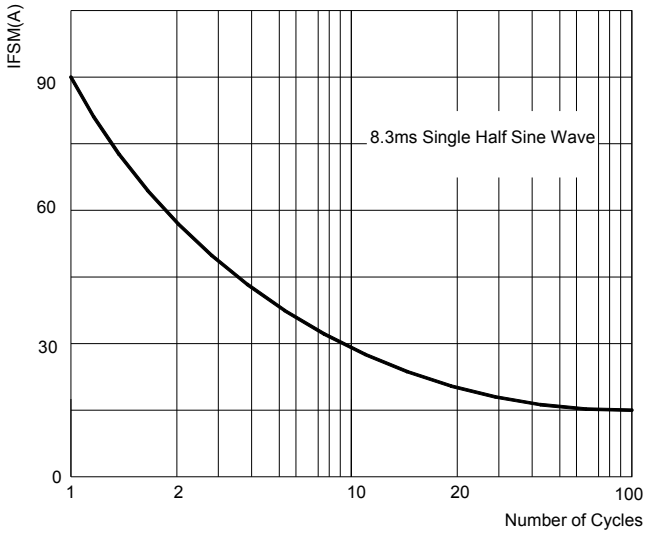


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL FORWARD CHARACTERISTICS

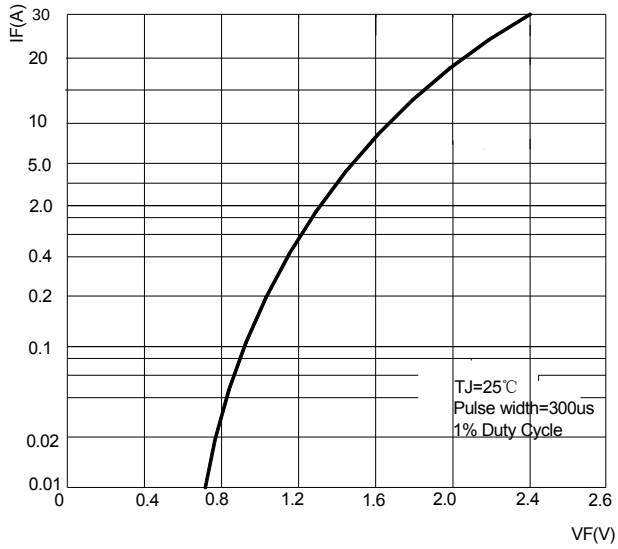


FIG.4:TYPICAL REVERSE CHARACTERISTICS

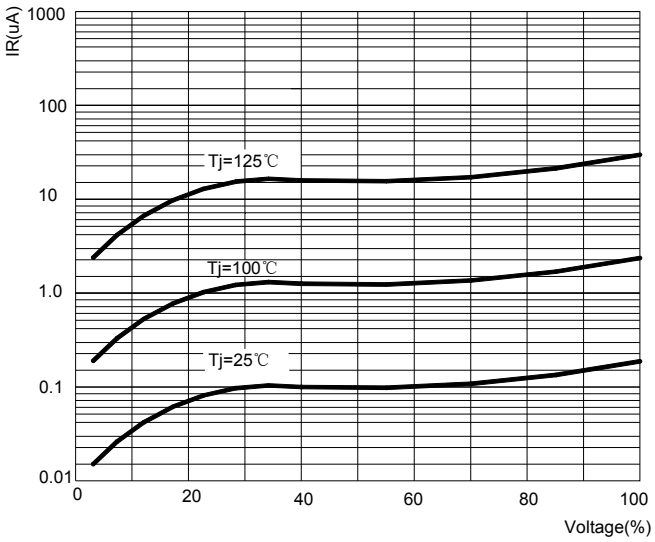
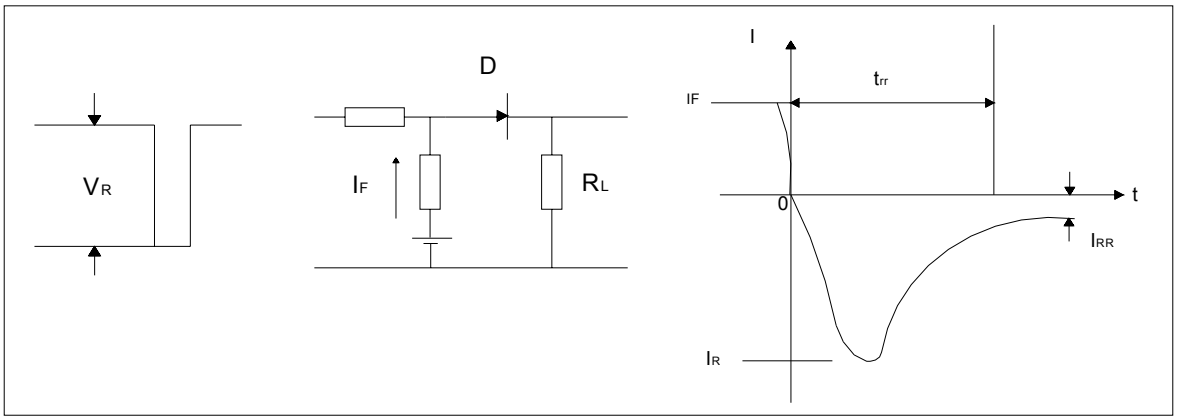
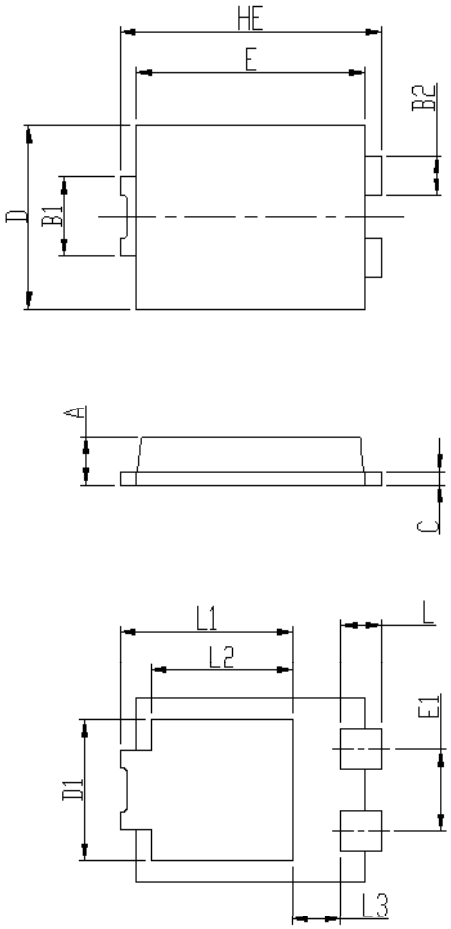


FIG.7: Diagram of circuit and Testing wave form of reverse recovery time

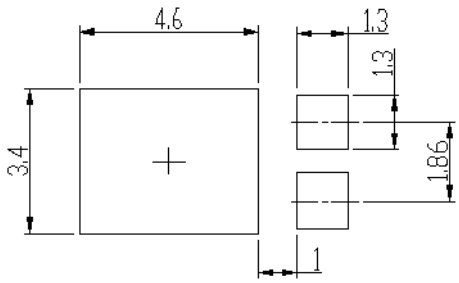


TO- 277 Package Outline Dimensions



DIM	Unit: mm		Unit: inch	
	MIN	MAX	MIN	MAX
HE	6.4	6.6	0.252	0.260
E	5.6	5.8	0.220	0.228
D	4.1	4.3	0.161	0.169
B1	1.7	1.9	0.067	0.075
B2	0.8	1	0.031	0.039
A	1.05	1.2	0.041	0.047
C	0.3	0.4	0.012	0.016
L	0.85	1.1	0.033	0.043
L1	4.2	4.4	0.165	0.173
L2	3.52 Typ.		0.139 Typ.	
L3	1.1	1.4	0.043	0.055
D1	3	3.3	0.118	0.130
E1	1.86 Typ.		0.073 Typ.	

TO- 277 Suggested Pad Layout



Note:
1.Controlling dimension:in millimeters.
2.General tolerance:± 0.05mm.
3.The pad layout is for reference purposes only.