

Features

High surge current capability

Low peak forward voltage

Applications

Rectifier

TO-277



Marking:SP2060L



Limiting Values(Absolute Maximum Rating)

Item	Symbol	Unit	Test Conditions	SP2060L
Repetitive Peak Reverse Voltage	V_{RRM}	V		60
Maximum RMS Voltage	V_{RMS}	V		42
Average Forward Current	$I_{F(AV)}$	A	60Hz Half-sine wave, Resistance load, $T_a=125^{\circ}\text{C}$	20
Surge(Non-repetitive)Forward Current	I_{FSM}	A	60Hz Half-sine wave, 1 cycle, $T_a=25^{\circ}\text{C}$	300
Junction Temperature	T_J	$^{\circ}\text{C}$		-55 ~ +150
Storage Temperature	T_{STG}	$^{\circ}\text{C}$		-55 ~ +150

Electrical Characteristics (T=25 $^{\circ}\text{C}$ Unless otherwise specified)

Item	Symbol	Unit	Test Condition		SP2060L	
Peak Forward Voltage	V_F	V	$I_F=20.0\text{A}$	$T_a=25^{\circ}\text{C}$	0.54(TYP)	0.56(MAX)
				$T_a=125^{\circ}\text{C}$	0.48(TYP)	0.50(MAX)
Peak Reverse Current	I_{RRM1}	mA	$V_{RM}=V_{RRM}$	$T_a=25^{\circ}\text{C}$	0.08(TYP)	0.10(MAX)
	I_{RRM2}			$T_a=125^{\circ}\text{C}$	60(TYP)	80(MAX)
Thermal Resistance(Typical)	$R_{\theta JA}$	$^{\circ}\text{C/W}$	Between junction and ambient		30	
	$R_{\theta JL}$		Between junction and terminal		1	
Typical junction capacitance	C_J	nF	$V_R=4.0\text{ V}$, $f=1\text{ MHz}$		0.95	

Typical Characteristics

FIG.1: FORWARD CURRENT DERATING CURVE

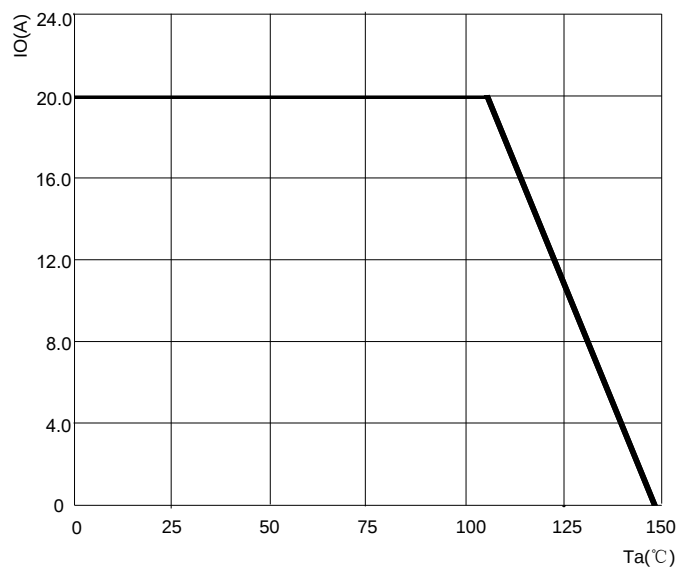


FIG.2: MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

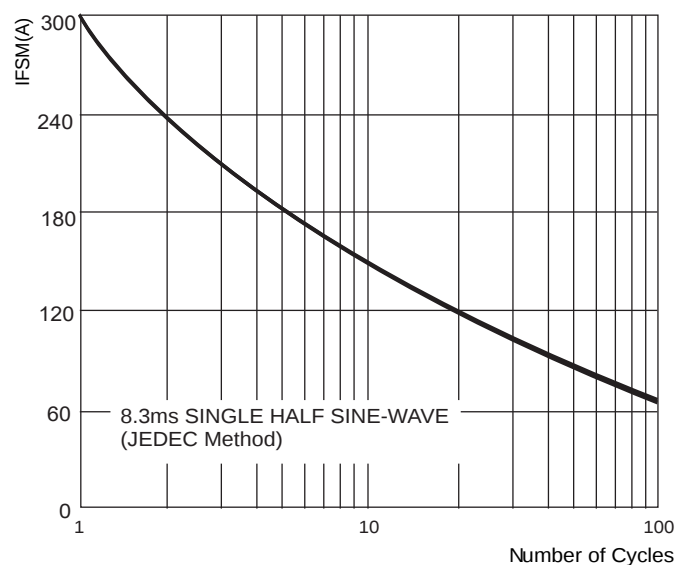


FIG.3: INSTANTANEOUS FORWARD CHARACTERISTICS

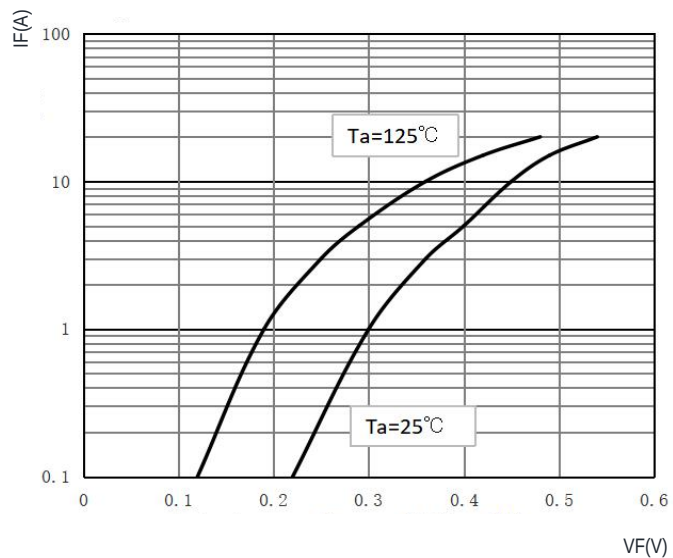
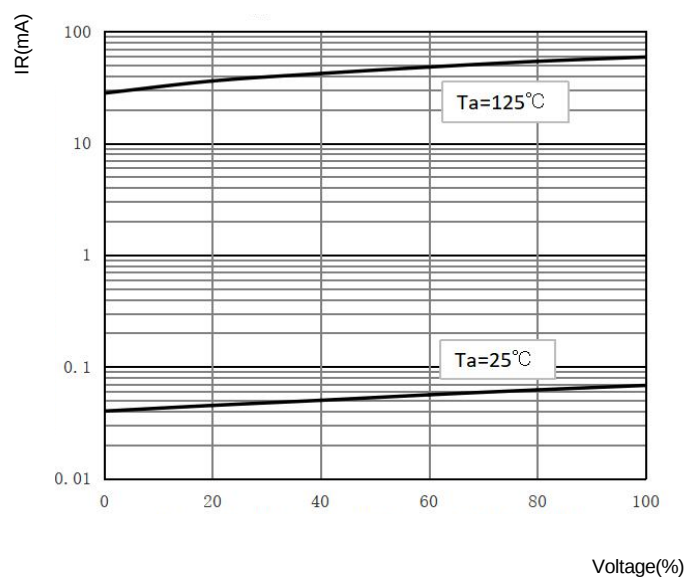
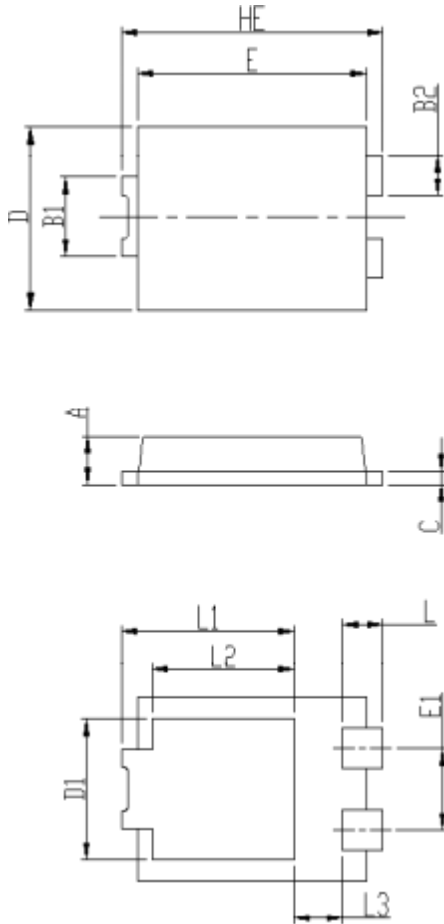


FIG.4: TYPICAL REVERSE CHARACTERISTICS

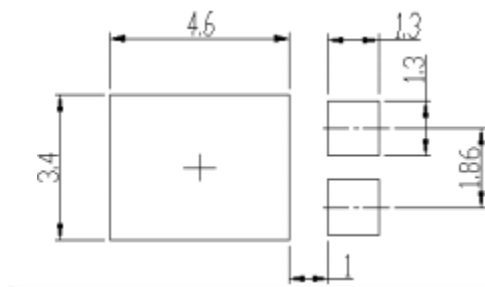


TO-277 package outline Dimensions



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: ± 0.05 mm.
3. The pad layout is for reference purposes only.