

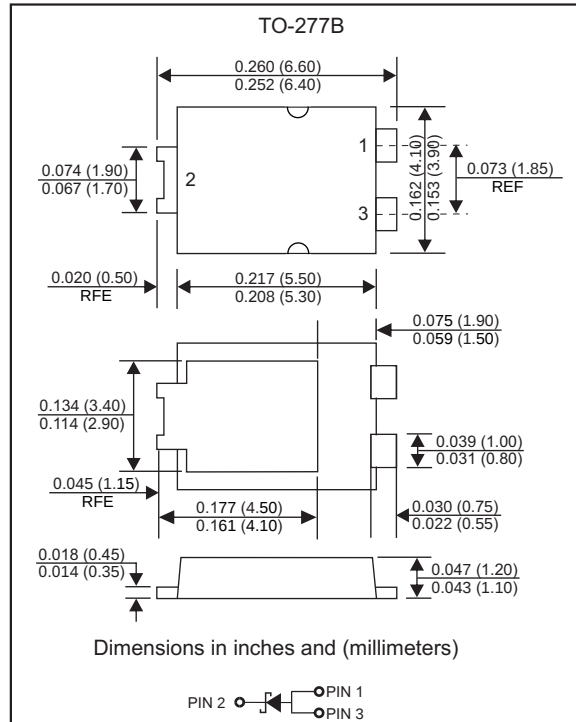
Features

- Ideal for automated placement.
- Low power losses.
- Compliant to Halogen-free.
- Suffix "-Q1" for AEC-Q101.

Mechanical data

- Epoxy:UL94-V0 rated flame retardant
- Case : TO-277B
- Terminals: Tin plated leads, solderable per J-STD-002 and JESD22-B102.
- Marking:SU2060

Package outline



Maximum ratings (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	60	V
Average Rectified Output Current, 60Hz -sine wave, R- load	$I_{F(AV)}$	20	A
Peak Forward Surge Current, 60Hz Half-sine wave 1 cycle ($T_A=25^{\circ}\text{C}$)	I_{FSM}	300	A
Current Squared Time ,1ms $\leq t \leq$ 8.3ms ($T_J=25^{\circ}\text{C}$)	I^2t	373	A ² s
Operating junction temperature range	T_J	-55 to +150	$^{\circ}\text{C}$
Storage temperature range	T_{STG}	-55 to +150	$^{\circ}\text{C}$

Electrical Characteristics (AT $T_A=25^{\circ}\text{C}$ unless otherwise noted)

Parameter	Test Conditions	Symbol	MIN.	TYP.	MAX.	Unit
Reverse Breakdown Voltage	$I_R=0.5\text{mA}$	V_{BR}	60	-	-	V
Forward voltage	$I_F=20\text{A}, T_J=25^{\circ}\text{C}$	V_F	-	0.55	0.65	V
	$I_F=20\text{A}, T_J=125^{\circ}\text{C}$		-	0.52	-	
Reverse current	$V_R=60\text{V}, T_J=25^{\circ}\text{C}$	I_R	-	-	0.5	mA
	$V_R=60\text{V}, T_J=100^{\circ}\text{C}$		-	-	100	

Thermal Characteristics

Parameter	Symbol	Value	Unit
Typical thermal resistance junction to case	$R_{\theta JC}$	8	$^{\circ}\text{C/W}$

Rating and characteristic curves

FIG.1: I_o - T_c Curve

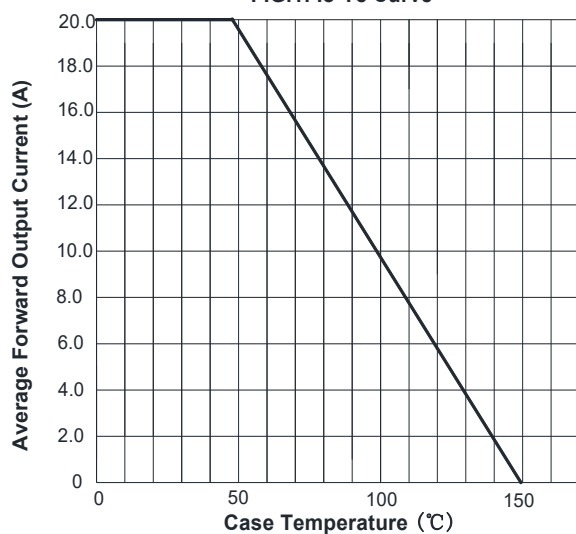


FIG.2: Forward Surge Current Capability

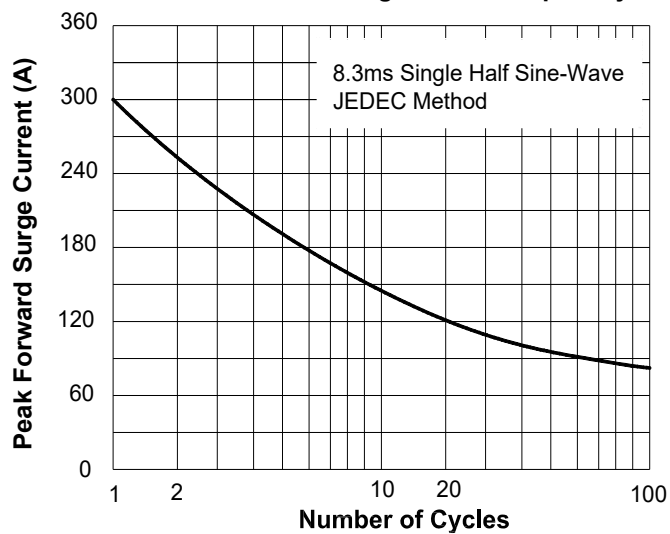


FIG.3: Forward Voltage

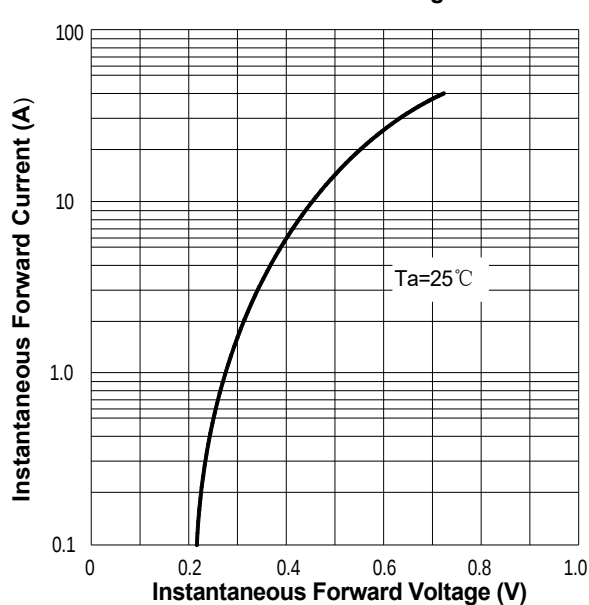
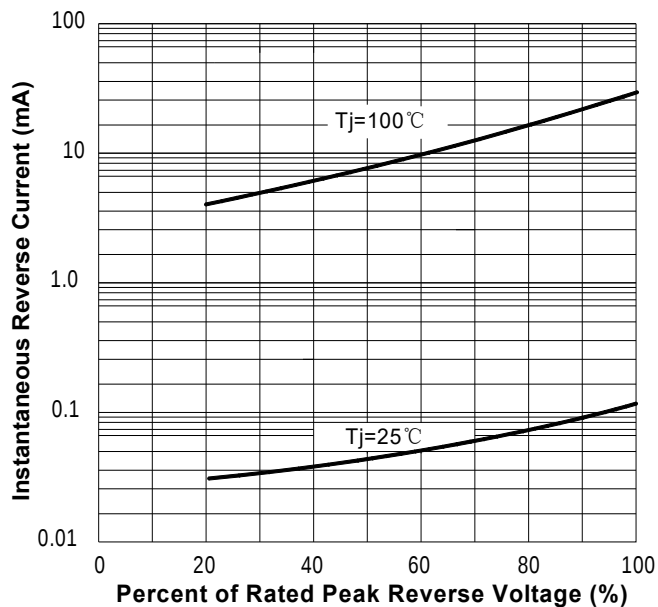
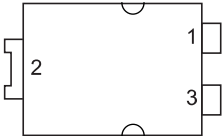
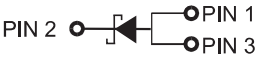


FIG.4: Typical Reverse Characteristics



Pinning information

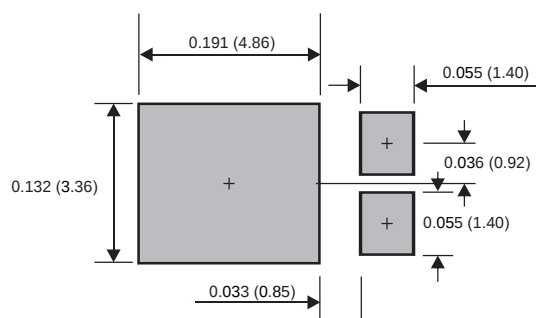
Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

Type number	Marking code
SU2060-T-Q1	SU2060

Suggested solder pad layout

TO-277B



Dimensions in inches and (millimeters)