

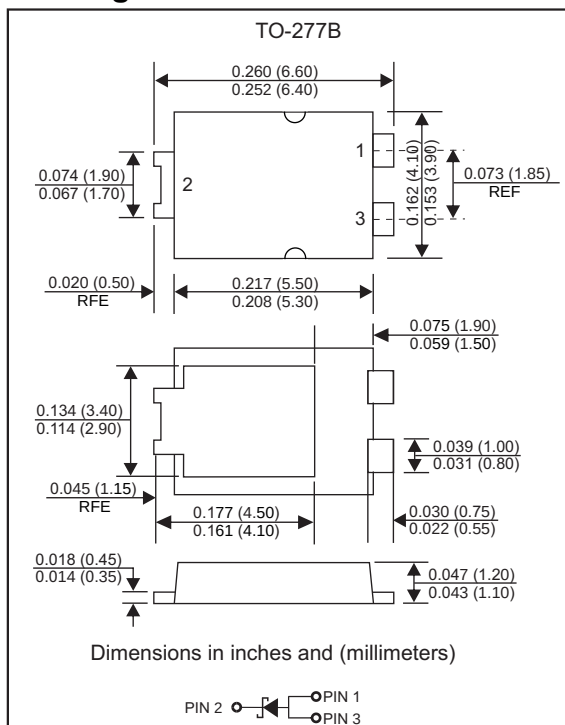
Features

- Ideal for automated placement.
- Low power losses.
- High forward surge capability.
- 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:SU10100

Package outline



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

Parameter	Symbol	Value	Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100	V
Average Rectified Output Current, 60Hz -sine wave R- load ($T=100^{\circ}\text{C}$)	$I_{F(AV)}$	10	A
Peak Forward Surge Current, 60Hz Half-sine wave 1 cycle ($T_A=25^{\circ}\text{C}$)	I_{FSM}	250	A
Current Squared Time, $1\text{ms} \leq t \leq 8.3\text{ms}$ ($T_J=25^{\circ}\text{C}$)	I^2t	260	A^2s
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}	100	-	-	V
Forward voltage	$I_F=10\text{A}, T_J=25^{\circ}\text{C}$	V_F	-	0.56	0.65	V
	$I_F=10\text{A}, T_J=125^{\circ}\text{C}$		-	0.49	-	
Reverse current	$V_R=100\text{V}, T_J=25^{\circ}\text{C}$	I_R	-	-	0.1	mA
	$V_R=100\text{V}, T_J=100^{\circ}\text{C}$		-	-	10	

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

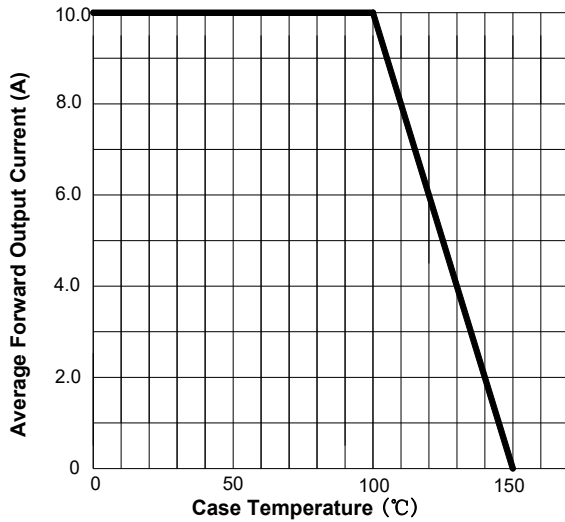


FIG.2: Forward Surge Current Capability

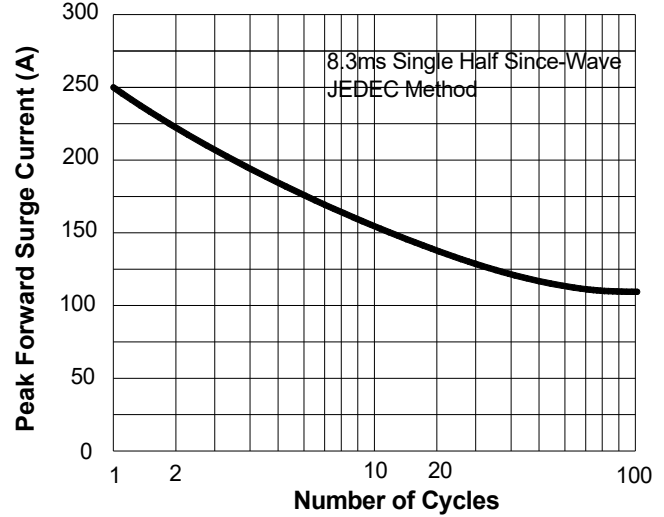


FIG.3: Forward Voltage

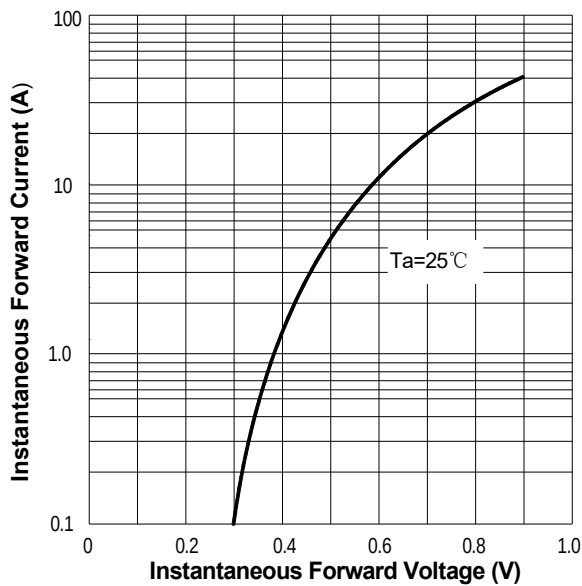
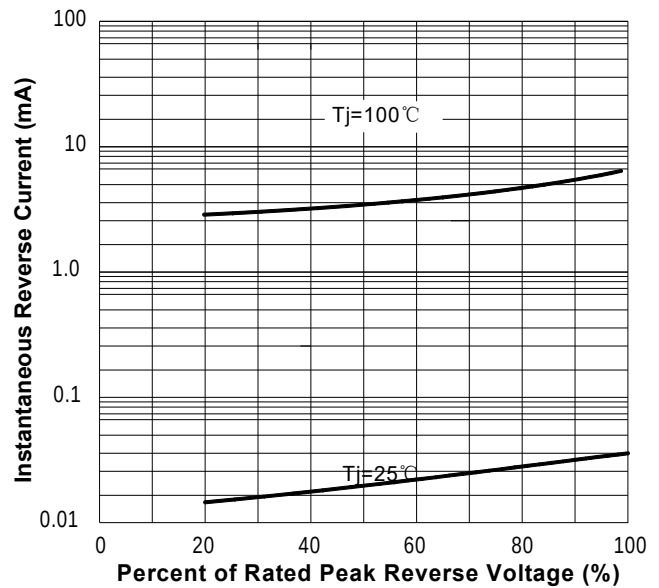
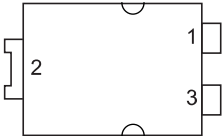
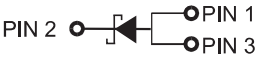


FIG.4: Typical Reverse Characteristics



Pinning information

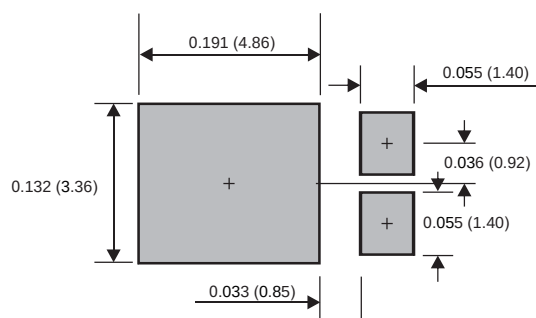
Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

Type number	Marking code
SU10100Y-T-Q1	SU10100

Suggested solder pad layout

TO-277B



Dimensions in inches and (millimeters)