

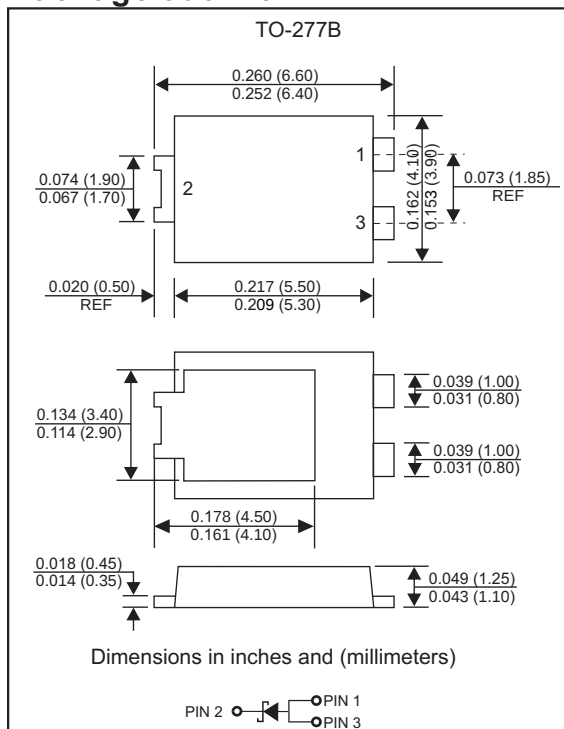
Features

- 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 , molded Plastic
- Terminals: Solderable per J-STD-002 and JESD22-B102

Package outline



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

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	60Hz -sine wave, R- load	I_O			10	A
Forward surge current	60Hz Half-sine wave, 1 cycle	I_{FSM}			200	A
Reverse current	$V_R = V_{RRM}$ $T_J = 25^{\circ}\text{C}$	I_R			0.3	mA
	$V_R = V_{RRM}$ $T_J = 100^{\circ}\text{C}$				50	
Typical Thermal resistance	Junction to case	$R_{\theta JC}$		8		$^{\circ}\text{C/W}$
Storage temperature		T_{STG}	-55		+150	$^{\circ}\text{C}$

SYMBOLS	V_{RRM}^{*1} (V)	V_{RMS}^{*2} (V)	V_R^{*3} (V)	V_F^{*4} (V)	Operating temperature T_J , ($^{\circ}\text{C}$)
SU1045-T-Q1	45	31.5	45	0.47	-55 to +150

*1 Repetitive peak reverse voltage

*2 RMS voltage

*3 Continuous reverse voltage

*4 Maximum forward voltage@ $I_F = 10\text{A}$

Rating and characteristic curves

FIG.1: I_o - T_c Curve

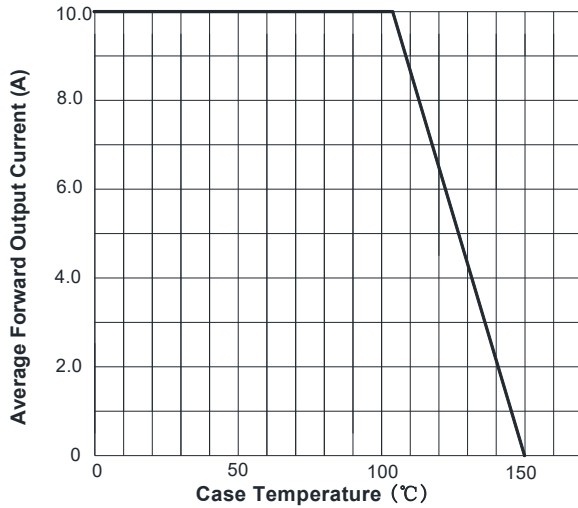


FIG.2: Forward Surge Current Capability

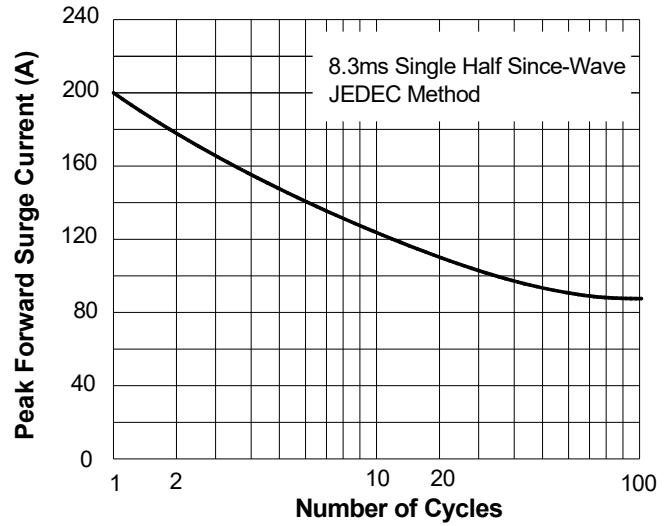


FIG.3: Forward Voltage

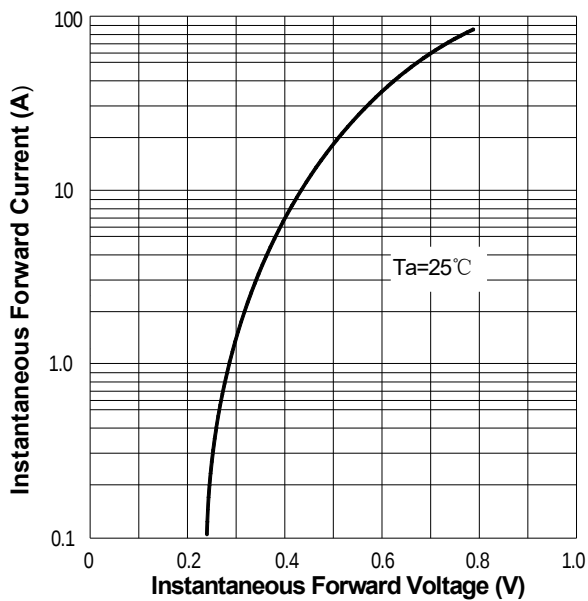
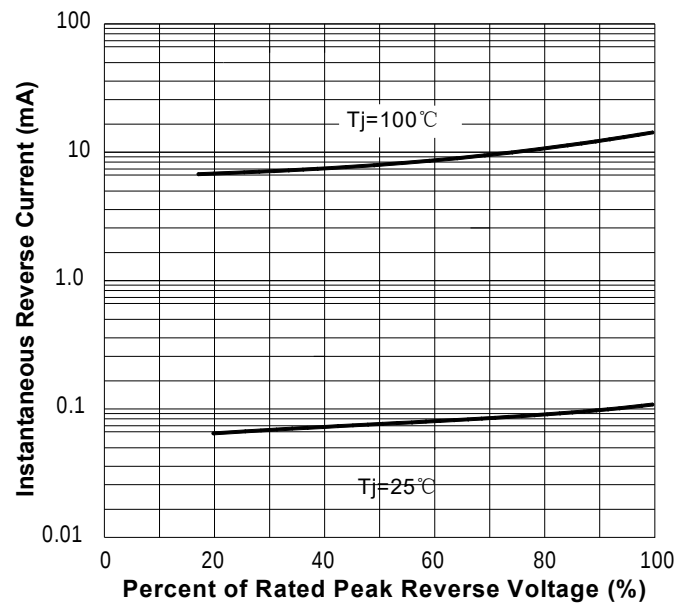
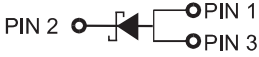


FIG.4: Typical Reverse Characteristics



Pinning information

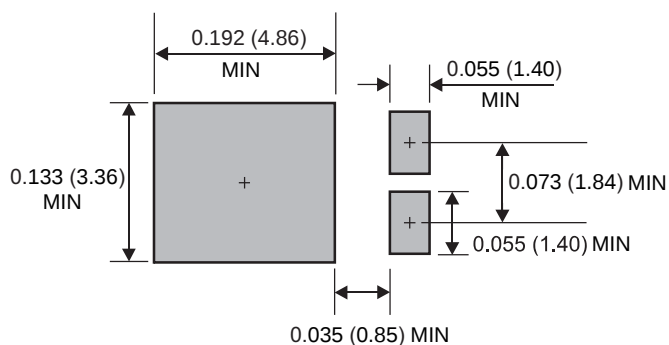
Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

Type number	Marking code
SU1045-T-Q1	SU1045

Suggested solder pad layout

TO-277B



Dimensions in inches and (millimeters)