

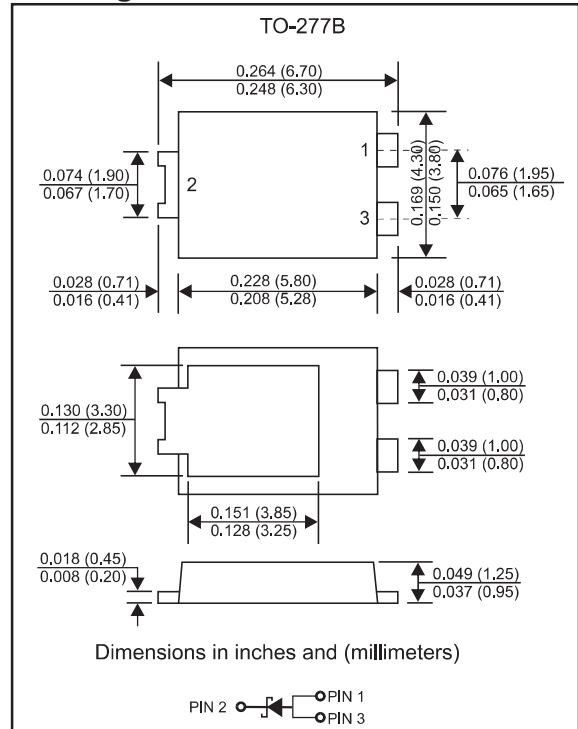
Features

- Ultra low forward voltage drop
- Low power losses, High efficiency operation
- Very low profile-typical height of 1.10mm
- Low thermal resistance package
- High operating junction temperature
- Compliant to Halogen-free
- Suffix "-Q1" for AEC-Q101

Mechanical data

- Epoxy: UL94-V0 rated flame retardant
- Case : TO-277B ,molded Plastic
- Terminals: Tin plated leads, solderable per MIL-STD-750 and Method 2026
- Marking: SL2045

Package outline



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

PARAMETER	SYMBOL	VALUE	UNIT
DC Blocking Voltage	V_{DC}	45	V
Working Peak Reverse Voltage	V_{RWM}		
Repetitive Peak Reverse Voltage	V_{RRM}		
RMS Reverse Voltage	V_{RMS}	31.5	V
Average Rectified Output Current	I_O	20	A
Forward Surge Current @ 8.3ms Half - sine wave, $T_A=25^\circ\text{C}$	I_{FSM}	250	A
Storage Temperature	T_{stg}	-55 ~ +150	$^\circ\text{C}$
Operating Junction Temperature	T_j	-55 ~ +150	$^\circ\text{C}$

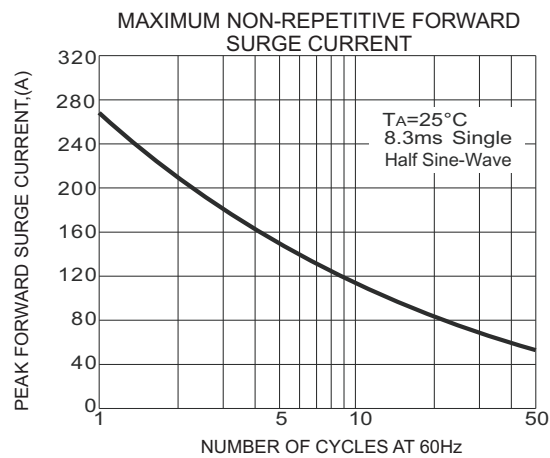
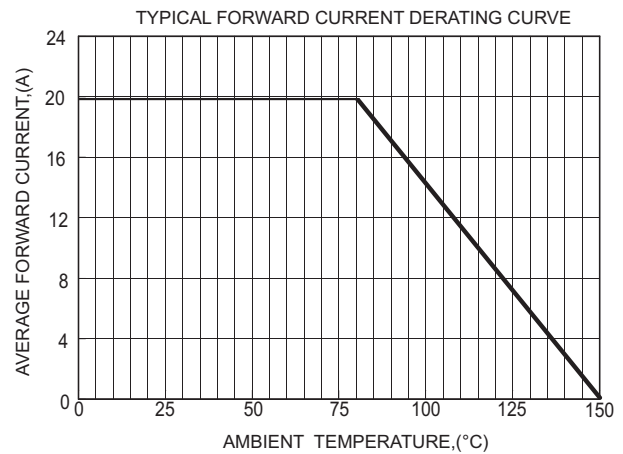
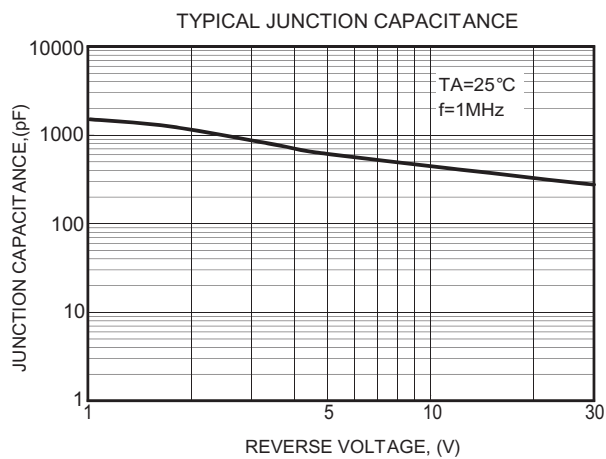
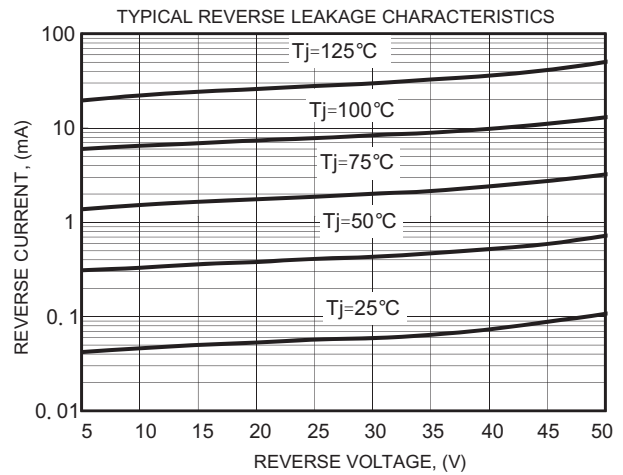
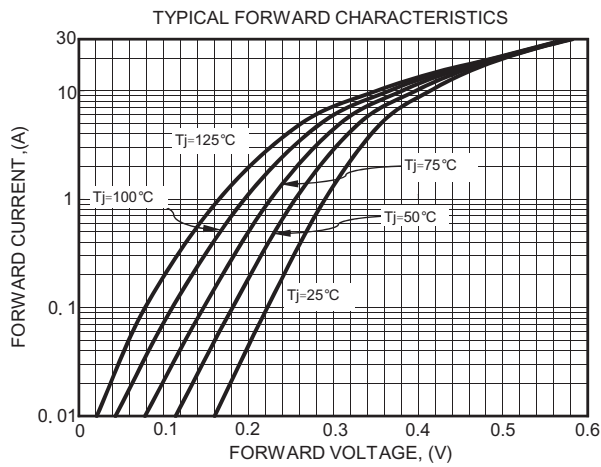
Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	Min	Typ	Max	UNIT
Peak Forward Voltage	V_{FM}	$I_{FM}=20\text{A}, T_j=25^\circ\text{C}$	-	0.48	0.50	V
Reverse Breakdown Voltage	V_{BR}	$I_R=0.5\text{mA}, T_j=25^\circ\text{C}$	45	-	-	V
Leakage Current	I_R	$V_R=45\text{V}, T_j=25^\circ\text{C}$	-	-	0.5	mA
		$V_R=45\text{V}, T_j=100^\circ\text{C}$	-	-	50	

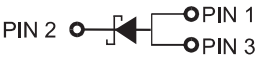
Thermal Characteristics

PARAMETER	SYMBOL	VALUE	UNIT
Thermal Resistance Junction to Ambient	$R_{\theta JA}$	30	$^\circ\text{C/W}$
Thermal Resistance Junction to Case	$R_{\theta JC}$	8	$^\circ\text{C/W}$

Rating and characteristic curves



Pinning information

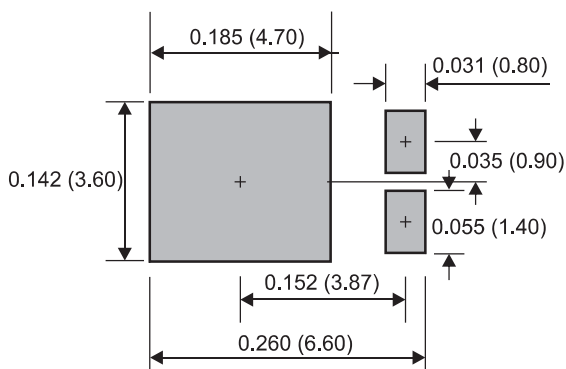
Pin	Simplified outline	Symbol
Pin2 cathode Pin1 anode Pin3 anode		

Marking

Type number	Marking code
SL2045-T-Q1	SL2045

Suggested solder pad layout

TO-277B



Dimensions in inches and (millimeters)