

SML4045CP1

- Hermetic TO3 Package
- $V_{RRM} = 45V$, $I_F = 40A$
- Space Level and High-Reliability Screening Options Available



ABSOLUTE MAXIMUM RATINGS ($T_A = 25^\circ C$ unless otherwise stated)

V_{RRM}	Repetitive Peak Reverse Voltage	45V
V_{RWM}	Working Peak Reverse Voltage	45V
V_R	DC Blocking Voltage	45V
I_O	Average Rectified Forward Current ^{(1) (2)}	40A
I_{FSM}	Peak Surge Forward Current ^{(1) (3)}	600A
T_J	Junction Temperature Range	-65 to +175°C
T_{STG}	Storage Temperature Range	-65 to +175°C

⁽¹⁾ Both legs tied together (Double per leg: $I_O = 20A$, $I_{FSM} = 300A$, $R_{\theta JSP} = 1.8^\circ C/W$)

⁽²⁾ Resistive Load, 60Hz, Sine Wave, $T_A +25^\circ C$

⁽³⁾ 8.3ms pulse, half Sine Wave superimposed on I_O , allow junction to reach equilibrium between pulse, $T_A +25^\circ C$

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ C$ unless otherwise stated)

Symbol	Parameter	Test Conditions	Min	Typ	Max	Units
V_{FM}	Forward Voltage Drop	$I_F = 5A^{(4)}$			0.50	V
		$I_F = 10A^{(4)}$			0.56	
		$I_F = 20A^{(4)}$			0.69	
		$I_{ZT} = 10A^{(4)}$ $T_A = -55^\circ C$			0.63	
I_R	Reverse Leakage Current	$V_R = 45V^{(4)}$			0.2	mA
		$T_A = 100^\circ C$			15	
C_J	Junction Capacitance	$V_R = 10V$ $f = 1.0MHz$			800	pF

Notes

⁽⁴⁾ Pulse Width < 300µs, Duty Cycle <2%

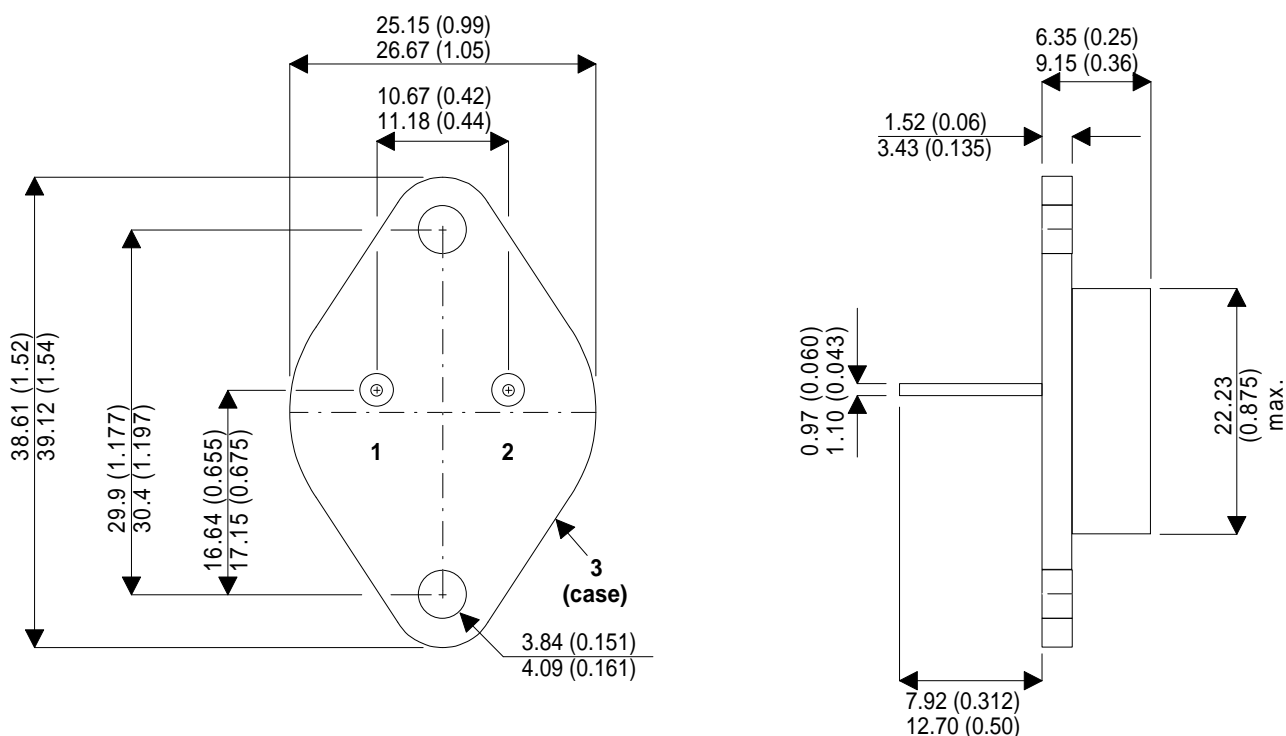
SCHOTTKY RECTIFIER DIODE SML4045CP1

THERMAL PROPERTIES

Symbol	Parameter	Max	Units
$R_{\theta JC}$	Thermal Resistance Junction to Case ⁽¹⁾	0.9	°C/W

MECHANICAL DATA

Dimensions in mm (Inches)



TO3 (TO-204AA) METAL PACKAGE Underside View

Pin 1 – Anode1 Pin 2 – Anode2 Case – Common Cathode