



# CBD40120LCT

## LOW VF SCHOTTKY RECTIFIER

**VOLTAGE** 120 Volts **CURRENT** 40 Amperes

### FEATURES

- Low forward voltage drop, low power losses
- High efficiency operation
- In compliance with EU RoHS 2002/95/EC directives

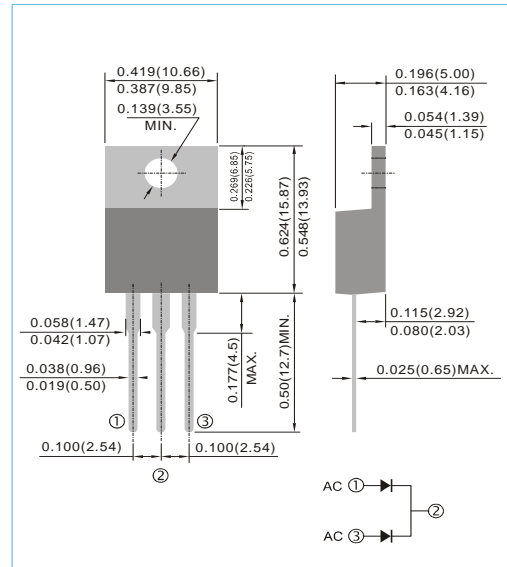
### MECHANICAL DATA

Case : TO-220AB, Plastic

Terminals : Solderable per MIL-STD-750, Method 2026

Weight: 0.0655 ounces, 1.859 grams.

**TO-220AB** Unit : inch(mm)



### MAXIMUM RATINGS( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	VALUE	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	120	V
Maximum rms voltage	$V_{RMS}$	85	V
Maximum dc blocking voltage	$V_R$	120	V
Maximum average forward rectified current	$I_{F(AV)}$	40 20	A
Peak forward surge current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	250	A
Typical thermal resistance	$R_{\theta JC}$	2.5	$^\circ\text{C}/\text{W}$
Operating junction temperature range	$T_J$	-55 to + 150	$^\circ\text{C}$
Storage temperature range	$T_{STG}$	-55 to + 150	$^\circ\text{C}$

Note : 1. Mounted on infinite heatsink.

### ELECTRICAL CHARACTERISTICS( $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITIONS	MIN.	TYP.	MAX.	UNIT
Breakdown voltage per diode	$V_{BR}$	$I_R=1\text{mA}$	120	-	-	V
Instantaneous forward voltage per diode	$V_F$	$I_F=5\text{A}$	-	0.59	-	V
		$I_F=10\text{A}$	-	0.7	-	V
		$I_F=20\text{A}$	-	0.8	0.85	V
		$T_J=25^\circ\text{C}$	-	-	-	-
Reverse current per diode	$I_R$	$I_F=5\text{A}$	-	0.49	-	V
		$I_F=10\text{A}$	-	0.57	-	V
		$I_F=20\text{A}$	-	0.67	-	V
		$T_J=125^\circ\text{C}$	-	-	-	-
Reverse current per diode	$I_R$	$V_R=96\text{V}$	-	6.31	-	$\mu\text{A}$
		$V_R=120\text{V}$	-	-	50	$\mu\text{A}$
		$T_J=25^\circ\text{C}$	-	9	-	$\mu\text{A}$
		$T_J=125^\circ\text{C}$	-	-	-	$\text{mA}$

PRELIMINARY



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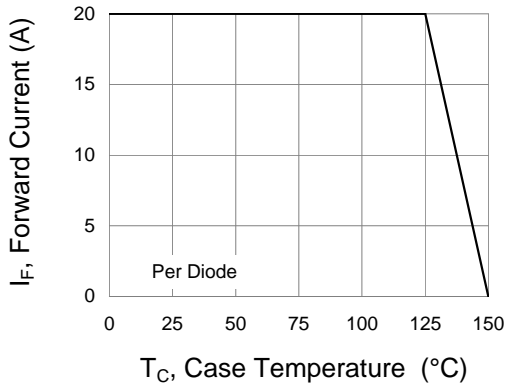


Fig.1 Forward Current Derating Curve

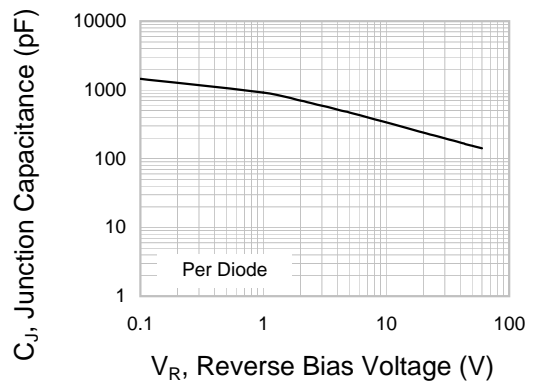


Fig.2 Typical Junction Capacitance

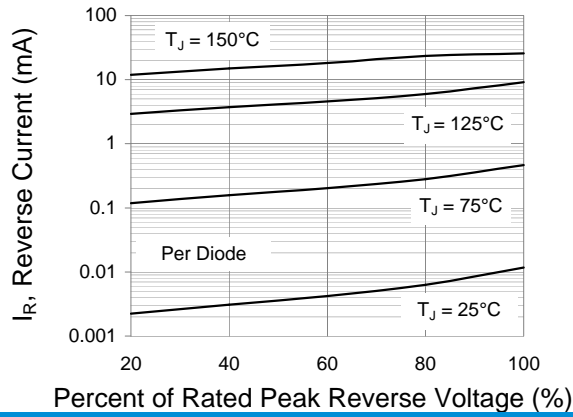


Fig.3 Typical Reverse Characteristics

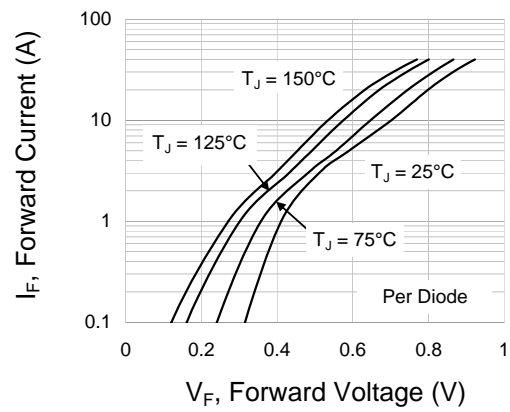


Fig.4 Typical Forward Characteristics

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