

CDBKA20120L-HF

Reverse Voltage: 120 V

Forward Current: 20 A

RoHS Device

Halogen Free

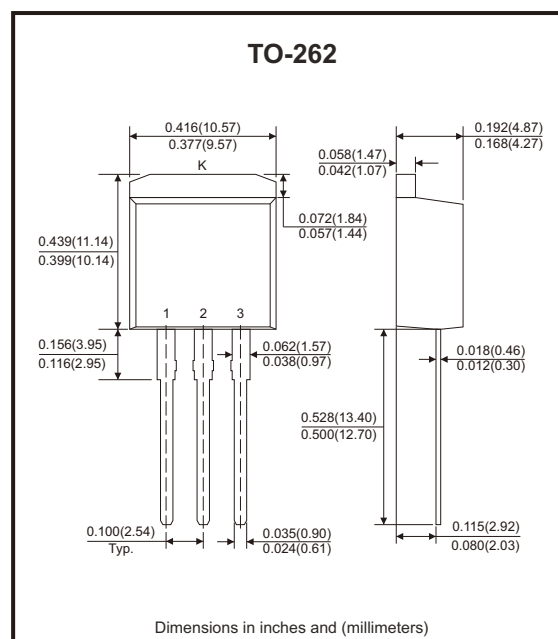


Features

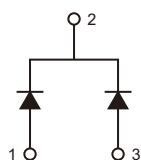
- Ultra low forward voltage drop.
- Excellent high temperature stability.
- Patented super barrier rectifier technology.
- Soft, fast switching capability.

Mechanical data

- Case: TO-262, molded plastic.
- Case material: molded plastic UL flammability classification rating 94V-0.
- Terminals: Matte Tin Finish annealed over copper leadframe. Solderable per MIL-STD-202, method 208.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Value	Unit
Maximum repetitive peak reverse voltage		V_{RRM}	120	V
Maximum RMS voltage		V_{RMS}	84	V
Maximum average forward rectified current	per device	I_O	20	A
	per diode		10	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	per diode	I_{FSM}	200	A
Typical thermal resistance per diode	(Note 1)	$R_{\theta JC}$	10	°C/W
Operating junction temperature range		T_J	-55 to +150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

Note: 1. Mounted on infinite heatsink.

Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Breakdown voltage per diode	$I_R = 0.5\text{mA}$, $T_J = 25^\circ\text{C}$	V_{BR}	120			V
Instantaneous forward voltage per diode	$I_F = 1\text{A}$, $T_J = 25^\circ\text{C}$	V_F		0.48		V
	$I_F = 5\text{A}$, $T_J = 25^\circ\text{C}$			0.64		
	$I_F = 10\text{A}$, $T_J = 25^\circ\text{C}$			0.76	0.80	
	$I_F = 1\text{A}$, $T_J = 125^\circ\text{C}$			0.41		
	$I_F = 5\text{A}$, $T_J = 125^\circ\text{C}$			0.56		
Reverse current per diode	$V_R = 96\text{V}$, $T_J = 25^\circ\text{C}$	I_R		2		μA
	$V_R = 120\text{V}$, $T_J = 25^\circ\text{C}$				50	μA
	$V_R = 120\text{V}$, $T_J = 125^\circ\text{C}$			2.6		mA

Typical Rating and Characteristics Curves (CDBKA20120L-HF)

Fig.1 - Forward Current Derating Curve

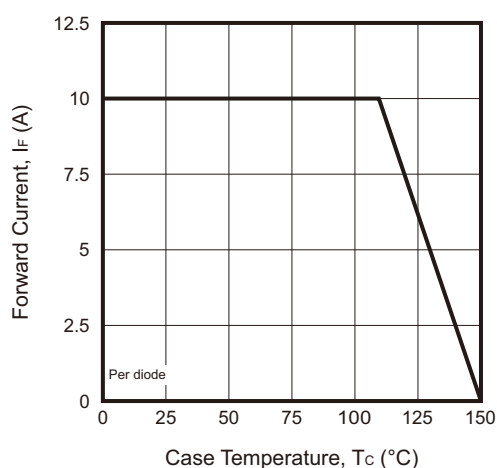


Fig.2 - Typical Junction Capacitance

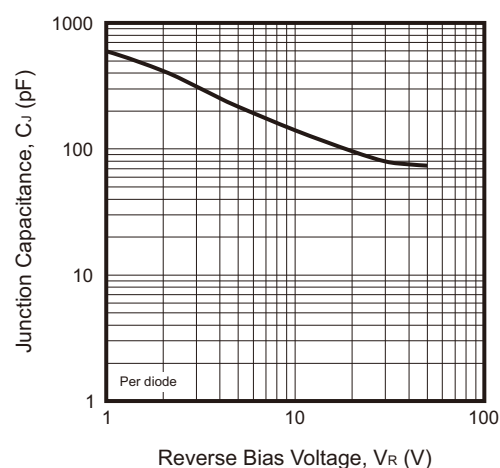


Fig.3 - Typical Reverse Characteristics

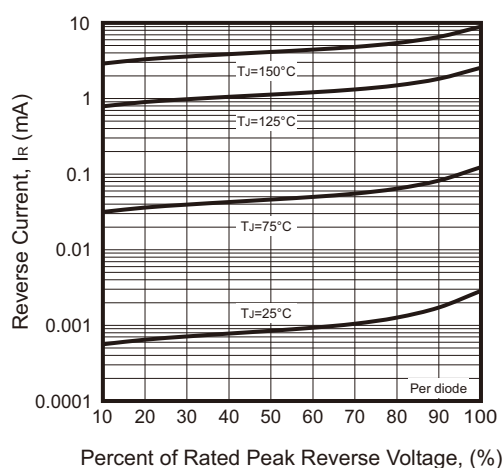
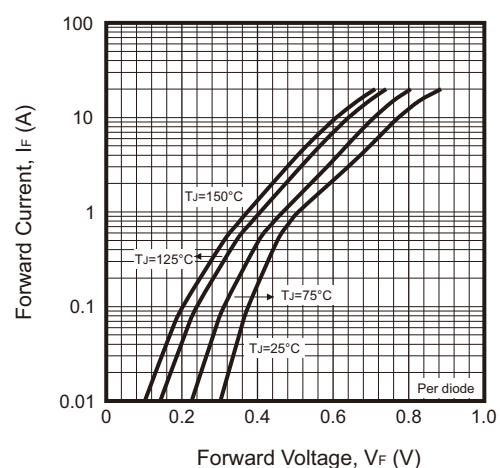
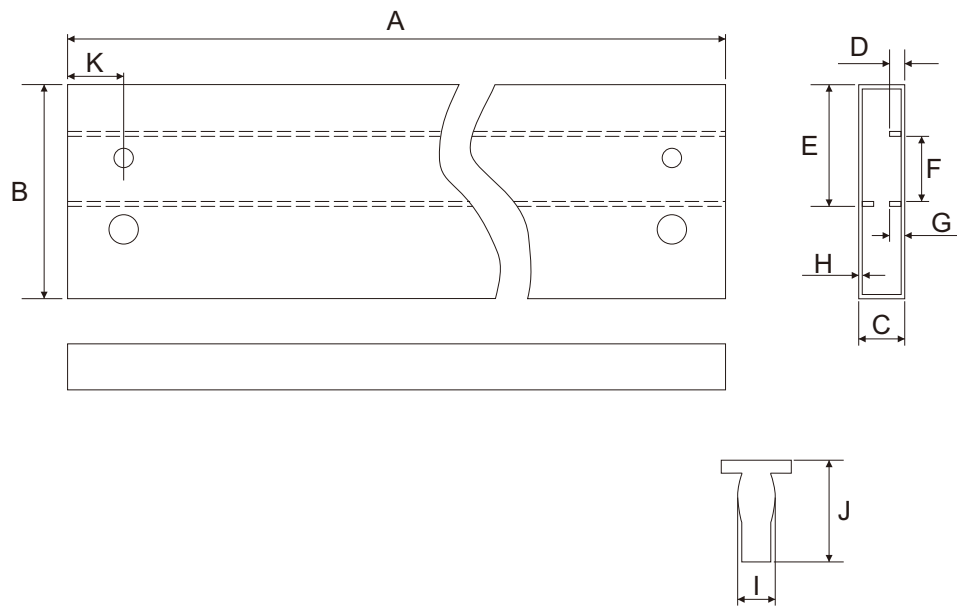


Fig.4 - Typical Forward Capacitance



TUBE PACK Specification

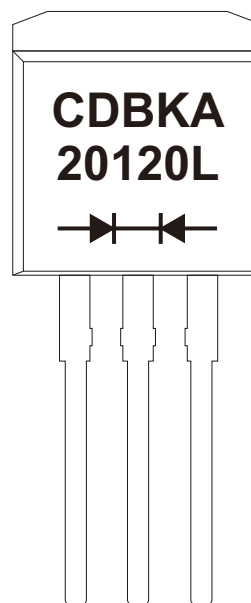


TO-262	SYMBOL	A	B	C	D	E	F	G	H
	(mm)	530.00 ± 1.00	32.60 ± 0.30	7.00 ± 0.30	2.40 ± 0.30	18.40 ± 0.30	10.10 ± 0.30	2.00 ± 0.30	0.60 ± 0.10
	(inch)	20.866 ± 0.039	1.283 ± 0.012	0.276 ± 0.012	0.094 ± 0.012	0.724 ± 0.012	0.398 ± 0.012	0.079 ± 0.012	0.024 ± 0.004

TO-262	SYMBOL	I	J	K
	(mm)	3.49 ± 0.30	9.70 ± 0.30	6.50 ± 0.30
	(inch)	0.137 ± 0.012	0.382 ± 0.012	0.256 ± 0.012

Marking Code

Part Number	Marking Code
CDBKA20120L-HF	CDBKA20120L



Standard Packaging

Case Type	TUBE PACK
	TUBE (pcs)
TO-262	50