Low VF Schottky Rectifiers

CDBKA20120L-HF

Reverse Voltage: 120 V
Forward Current: 20 A
RoHS Device
Halogen Free

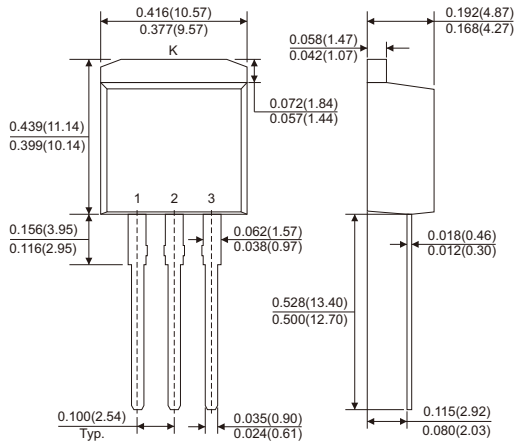
Features

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

Mechanical data

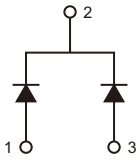
- Case: TO-262, molded plastic.
- Case material: molded plastic UL flammability classification rating 94V-0.
- Terminals: Matte Tin Finish annealed over copper leadframe. Solderable per MIL-STD-202, method 208.
- Mounting position: Any.

TO-262



Dimensions in inches and (millimeters)

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	$I_{F(AV)}$	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 = 0.5mA, T_J = 25°C	V_{BR}	120			V
Instantaneous forward voltage per diode	I_F = 1A, T_J = 25°C	V_F		0.48		V
	I_F = 5A, T_J = 25°C			0.64		
	I_F = 10A, T_J = 25°C			0.76	0.80	
	I_F = 1A, T_J = 125°C			0.41		
	I_F = 5A, T_J = 125°C			0.56		
Reverse current per diode	V_R = 96V, T_J = 25°C	I_R		2		μA
	V_R = 120V, T_J = 25°C				50	μA
	V_R = 120V, T_J = 125°C			2.6		mA

Rating and Characteristics Curves (CDBKA20120L-HF)

Fig.1 - Forward Current Derating Curve

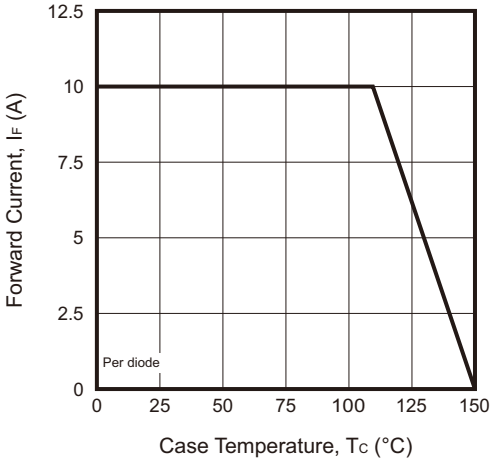


Fig.2 - Typical Junction Capacitance

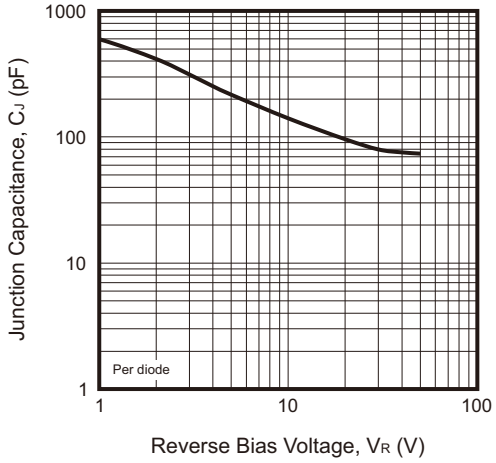


Fig.3 - Typical Reverse Characteristics

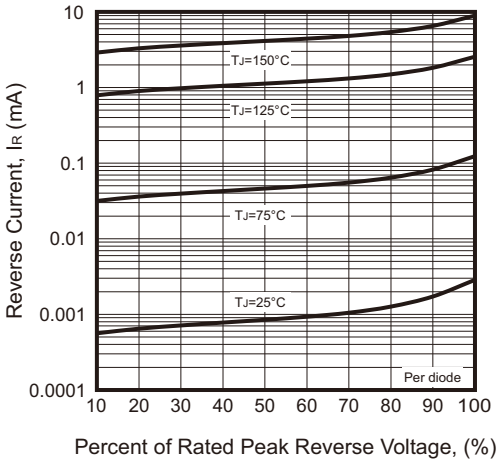
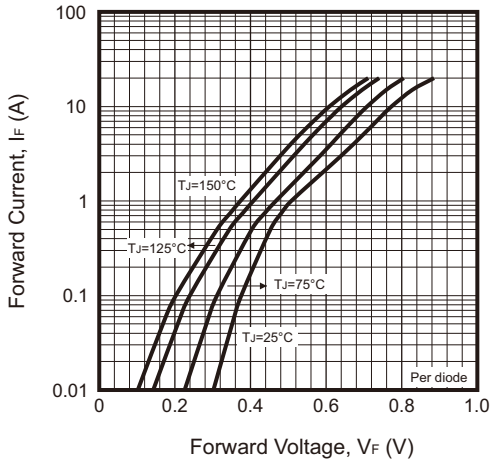
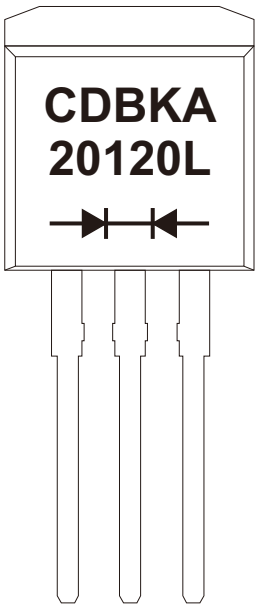


Fig.4 - Typical Forward Capacitance



Marking Code

Part Number	Marking Code
CDBKA20120L-HF	CDBKA20120L



Standard Packaging

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