C20L45CT

Chip Integration Technology Corporation

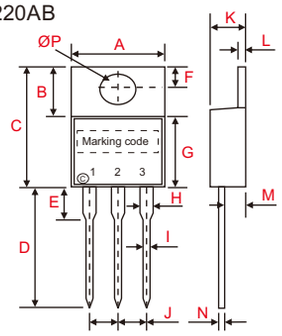
20A Trench Schottky Rectifier

■Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability..
- Lead-free parts meet environmental standards of MIL-STD-19500 /228

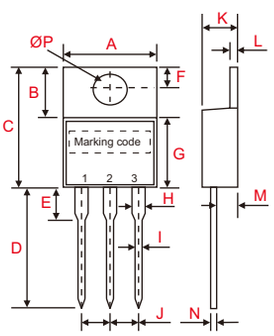
■Outline

TO-220AB



symbol	Dimensions in inches(millimeters)	
	Min	Max
A	0.398(10.1)	0.406(10.3)
B	0.236(6.0)	0.252(6.4)
C	0.579(14.7)	0.594(15.1)
D	0.543(13.8)	0.551(14.0)
E	0.143(3.63)	0.159(4.03)
F	0.104(2.64)	0.112(2.84)
G	0.335(8.5)	0.350(8.9)
H	0.046(1.17)	0.054(1.37)
I	0.028(0.71)	0.036(0.91)
J	0.098(2.49)	0.102(2.59)
K	0.176(4.47)	0.184(4.67)
L	0.046(1.17)	0.054(1.37)
M	0.102(2.6)	0.110(2.8)
N	0.019(0.28)	0.021(0.48)
ØP	0.147(3.74)	0.155(3.94)

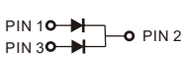
Alternate



symbol	Dimensions in inches(millimeters)	
	Min	Max
A	0.394(10.0)	0.413(10.5)
B	0.228(5.8)	0.268(6.8)
C	0.570(14.48)	0.625(15.87)
D	0.519(13.18)	0.558(14.18)
E	0.089(3.5)	0.099(3.9)
F	0.100(2.54)	0.120(3.04)
G	0.330(8.38)	0.350(8.9)
H	0.045(1.15)	0.060(1.52)
I	0.029(0.75)	0.037(0.95)
J	0.095(2.42)	0.105(2.66)
K	0.160(4.07)	0.190(4.82)
L	0.045(1.15)	0.055(1.39)
M	0.080(2.04)	0.110(2.8)
N	0.013(0.33)	0.019(0.52)
ØP	0.148(3.75)	0.156(3.95)

■ Mechanical data

- Epoxy : UL94V-0 rated flame retardant.
- Case : JEDEC TO-220AB molded plastic body.
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026.
- Polarity: As marked
- Mounting Position : Any.
- Weight : Approximated 2.25 gram.



■Maximum ratings and electrical characteristics

Rating at 25 °C ambient temperature unless otherwise specified. Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

Parameter	Conditions	Symbol	C20L45CT	UNIT
Marking code			C20L45CT	
Working peak reverse voltage		V_{RWM}	45	V
Forward rectified current (total device)		I_O	20	A
Forward surge current (per diode)	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}	150	A
Peak repetitive reverse surge current (per diode)	2us - 1kHz	I_{RRM}	3	A
Thermal resistance(1) (per diode)	Junction to case	$R_{\theta JC}$	2	°C/W
Storage temperature		T_{STG}	-55 ~ +150	°C
Operating Junction temperature		T_J	-55 ~ +150	°C

Parameter	Conditions	Symbol	MIN.	TYP.	MAX.	UNIT
Forward voltage drop (per diode)	I_F = 10A, T_J = 25°C	V_F			500	mV
	I_F = 10A, T_J = 125°C				470	
	I_F = 20A, T_J = 25°C				600	
Reverse current (per diode)	V_R = V_{RRM}, T_J = 25°C	I_R			0.5	mA
	V_R = V_{RRM}, T_J = 125°C				100	

Note : 1.Thermal resistance from junction to case per leg, with heatsink size(1.35" x 0.95" x 0.18") Al-plate.

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■Rating and characteristic curves

Fig. 1 - Instantaneous Forward Characteristics (per diode)

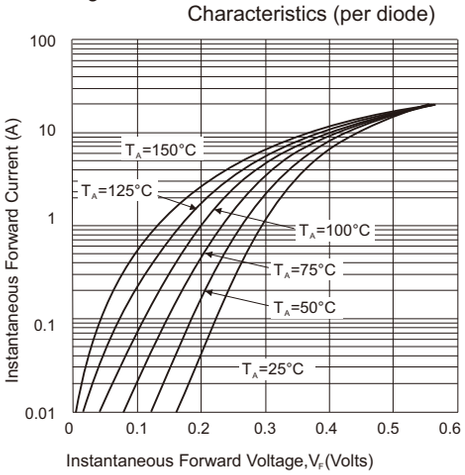


Fig.2 - Forward Current Derating Curve (per diode)

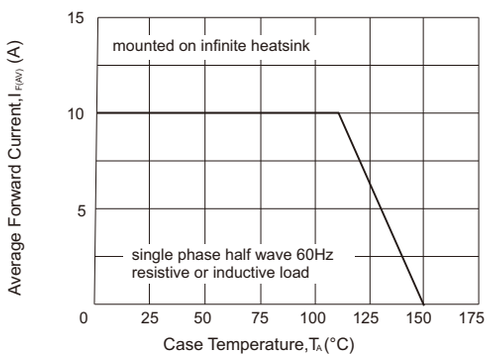
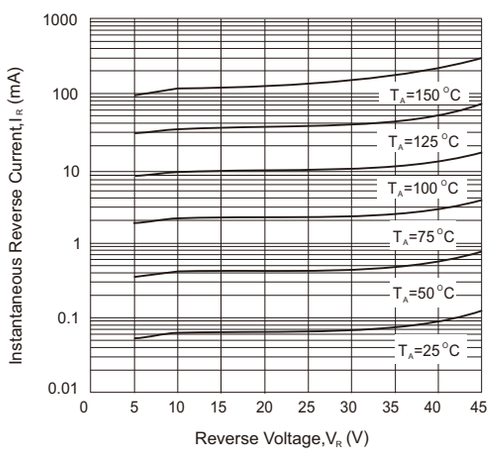


Fig. 3 - Reverse Characteristics (per diode)



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