

### Main Product Characteristics

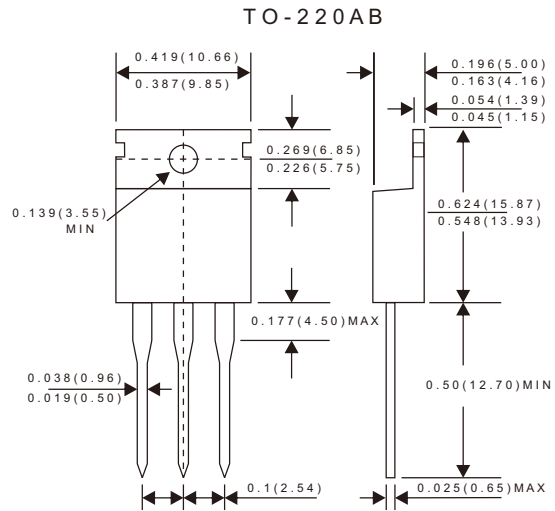
$I_{F(AV)}$	2 X 20A
$V_{RRM}$	100V
$T_J$	150°C
$V_{F(Typ)}$	0.615V

#### ■ Features

- Low forward voltage drop.
- Excellent high temperature stability.
- Fast switching capability.
- Lead free in compliance with EU RoHS.

#### ■ Mechanical Data

- Epoxy : UL94-V0 rated flame retardant.
- Case : JEDEC TO-220AB molded plastic body .
- Terminals : Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity : As marked.
- Weight : Approximated 2.25 gram.



Dimensions in inches and (millimeters)

#### ■ Maximum Ratings

Rating at 25°C ambient temperature unless otherwise specified.

#### ■ Circuit Diagram



Parameter	Condition	Symbol	C40S100CT	UNIT
Working peak reverse voltage		$V_{RWM}$	100	V
Forward Rectified Current (total device)		$I_O$	40	A
Forward Surge Current (per diode)	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$	300	A
Peak Repetitive Reverse Surge Current (per diode)	2us - 1kHz	$I_{RRM}$	1	A
Thermal Resistance (per diode)	Junction to case	$R_{BJC}$	2	°C/W
	Junction to ambient	$R_{BJA}$	50	
Storage Temperature		$T_{STG}$	-55 ~ +150	°C
Operating Junction Temperature		$T_J$	-55 ~ +150	°C

#### ■ Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Parameter	Condition	Symbol	MIN.	TYP.	MAX.	UNIT
Forward Voltage Drop (per diode)	$I_F = 3A, T_J = 25^\circ C$	$V_F$		430		mV
	$I_F = 20A, T_J = 25^\circ C$			640	710	
	$I_F = 20A, T_J = 125^\circ C$			615		
Reverse Current (per diode)	$V_R = 100V, T_J = 25^\circ C$	$I_R$		0.02	0.1	mA
	$V_R = 100V, T_J = 125^\circ C$			15	45	
Reverse Breakdown Voltage (per diode)	$I_R = 0.1mA, T_J = 25^\circ C$	$V_{BR}$	100			V

■ Rating and Characteristic Curves

Fig. 1 - Forward Characteristics

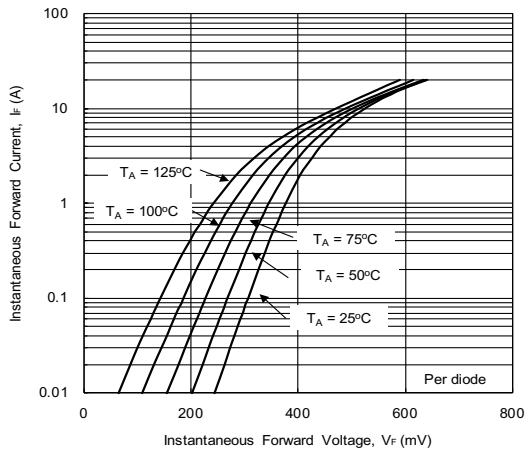


Fig. 2 - Reverse Characteristics

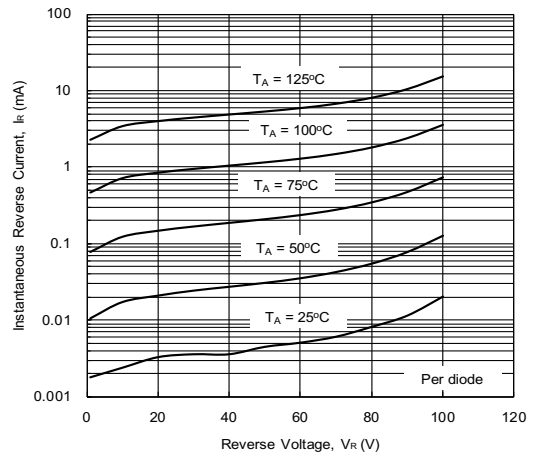


Fig. 3 - Forward Power Dissipation

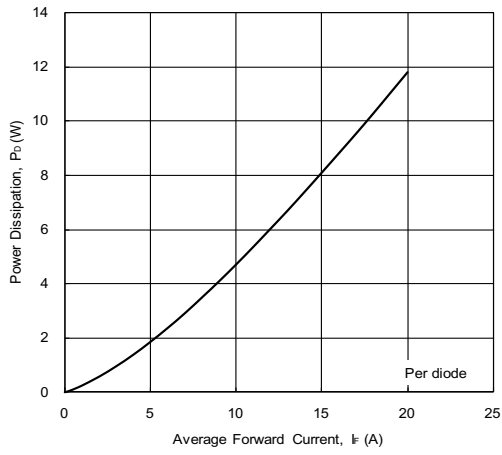


Fig. 4 - Forward Current Derating Curve

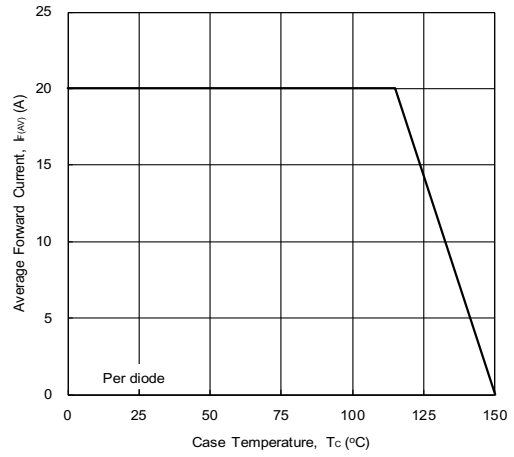
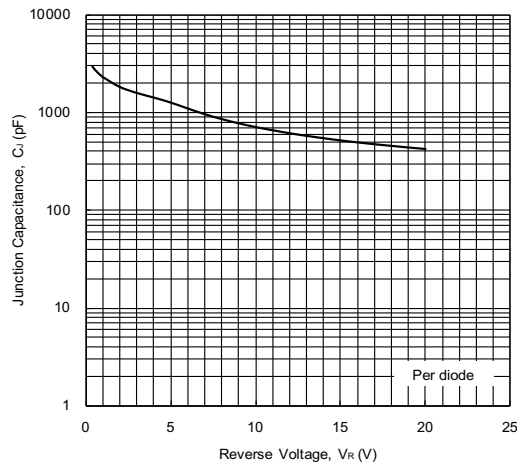
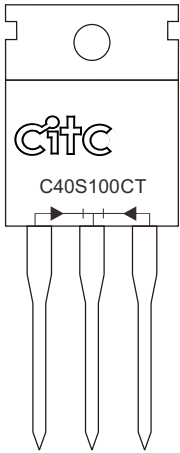



Fig. 5 - Junction Capacitance



■ Marking Information



C40S100CT : Product type marking code

 : CITC Logo

■ Ordering / Packing Information

Part number		Case	Q'TY/Tube (PCS)	Q'TY/Box (PCS)	Q'TY/Carton (PCS)
Halogen	C40S100CT	TO-220AB	50	1000	5000
Halogen free	C40S100CTG				

Notes : 1. For packaging details please reference our website at <http://www.citcorp.com.tw/tchinese/products/index.php>

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