



# EBRT40E120CT



## Excellent Schottky Barrier Rectifiers



TO-220AB

### Features

- Low Forward Voltage Drop
- Excellent High Temperature Stability
- Excellent Barrier Rectifier Technology
- Soft, Fast Switching Capability

### Ordering Information

Part No.	Package	Packing
EBRT40E120CT	TO-220AB	50 & 2000 / Tube & Box

### Device P/N

Part Number	Remark
EBRT40E120CT	General
EBRT40E120CT-H	Halogen Free

### Primary Characteristics

$I_F$	40	A
$V_{RRM}$	120	V
$I_{FSM}$	300	A
$V_F$	0.79	V
$T_J \text{ max}$	150	°C

### Mechanical Data

- Case: TO-220AB
- 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
- Weight: 2.015 grams (approximate)

### Maximum Ratings (TA=25°C unless otherwise noted)

PARAMETER	SYMBOL	EBRT40E120CT	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	120	V
Maximum RMS voltage	$V_{RMS}$	84	V
Maximum DC blocking voltage	$V_{DC}$	120	V
Maximum average forward rectified current (Total) (Per Leg)	$I_F$	40 20	A
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	300	A
Maximum Instantaneous Forward Voltage $I_F=5A @ 25^\circ C$ $I_F=20A @ 25^\circ C$	$V_F$	0.49 0.79	V
Maximum DC Reverse Current @ TA=25°C at Rated DC Blocking Voltage @ TA=125°C	$I_R$	0.2 25	mA
Typical Junction Capacitance(NOTE1)	$C_j$	830	pF
Typical Thermal Resistance	$R_{\theta JC}$	3	°C/W
Operating Temperature Range	$T_J$	-55 to +150	°C
Storage Temperature Range	$T_{STG}$	-55 to +175	°C
Marking Code		T40E120CT · 40E120CT	

### NOTES:

1. Measured at 1.0MHZ and applied reverse voltage of 4.0V DC



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### Rating and Characteristics Curves

FIG. 1-Typical Forward Current Derating Curve

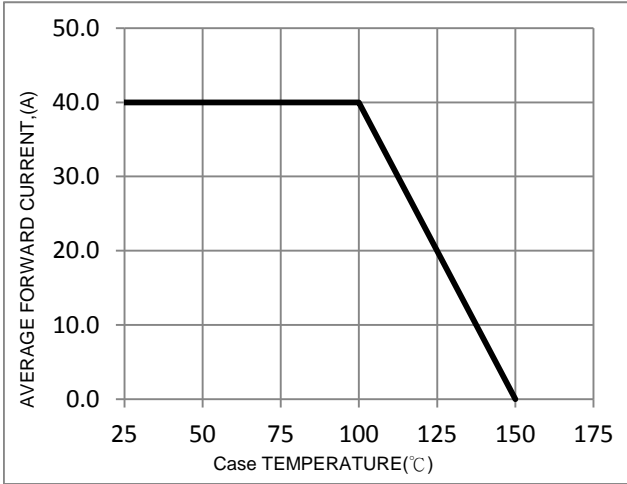


FIG. 2-Typical Forward Characteristics

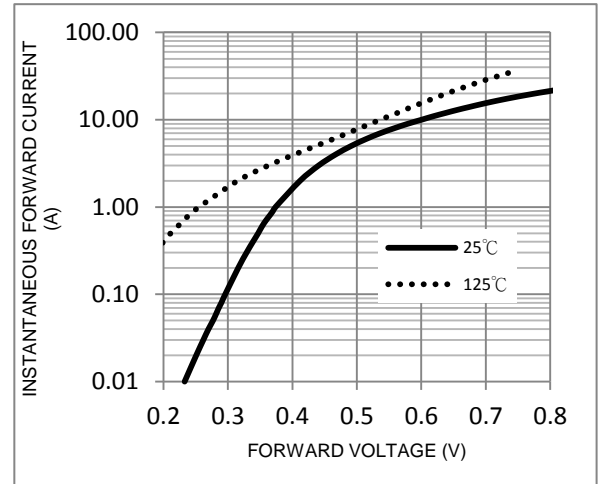


FIG. 3-Maximum Non-Repetitive Forward Surge Current

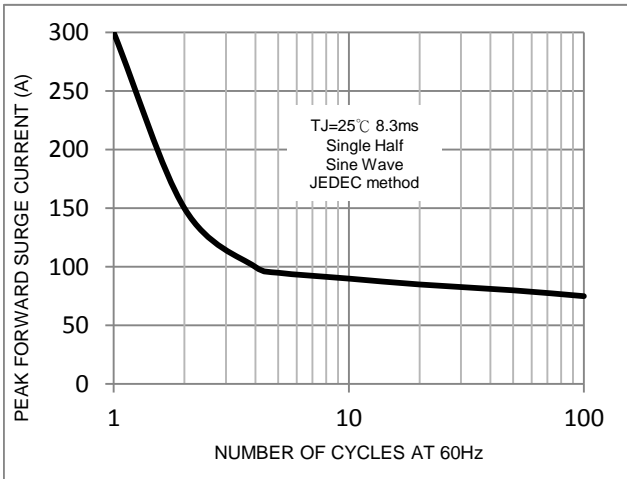


FIG. 4-Typical Reverse Characteristics

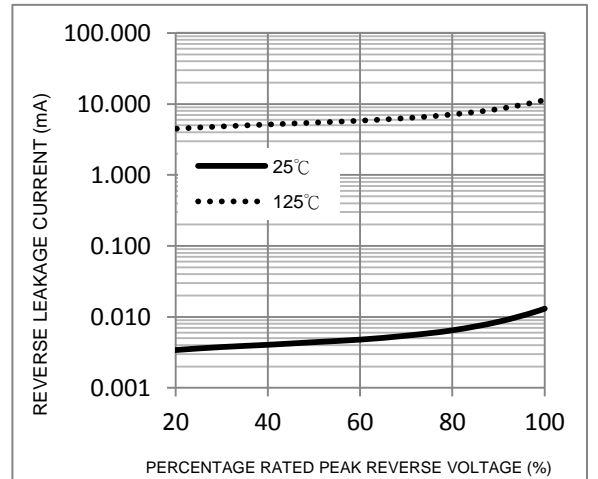


FIG. 5-Typical Junction Capacitance

