



# BD640CT~BD6200CT

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**VOLTAGE** 40 to 200 Volts **CURRENT** 6.0 Amperes

TO-251AB

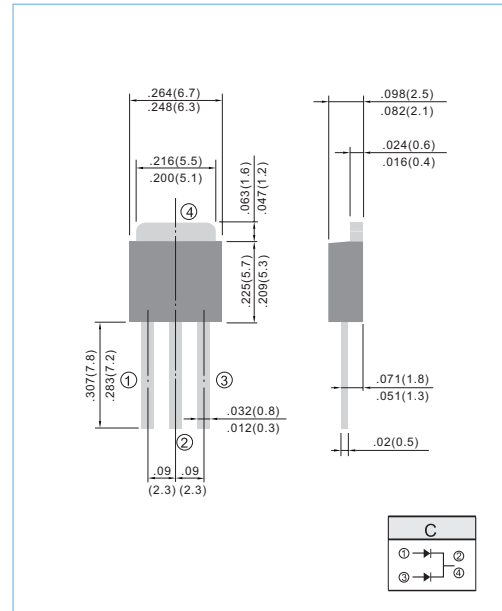
Unit : inch (mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Low power loss, High efficiency
- High surge capacity
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- In compliance with EU RoHS 2002/95/EC directives

### MECHANICAL DATA

- Case: TO-251AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: As marking
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0104 ounces, 0.297grams.



### MAXIMUM RATINGS

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

PARAMETER	SYMBOL	BD640CT	BD645CT	BD650CT	BD660CT	BD680CT	BD690CT	BD6100CT	BD6150CT	BD6200CT	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	90	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	31.5	35	42	56	63	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	50	60	80	90	100	150	200	V
Maximum Average Forward Current (See Figure 1)	$I_{F(AV)}$	6.0									A
Peak Forward Surge Current :8.3ms single half sine-wave superimposed on rated load(JEDEC method)	$I_{FSM}$	75									A
Maximum Forward Voltage at 3.0A per leg	$V_F$	0.70		0.75		0.80			0.90		V
Maximum DC Reverse Current $T_J=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_J=100^\circ\text{C}$	$I_R$	0.05 20									mA
Typical Thermal Resistance	$R_{\theta JC}$	5									°C / W
Operating Junction and Storage Temperature Range	$T_J, T_{STG}$	-55 to +150				-65 to +175					°C

Note: Both Bonding and Chip structure are available.

PRELIMINARY



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## RATING AND CHARACTERISTIC CURVES

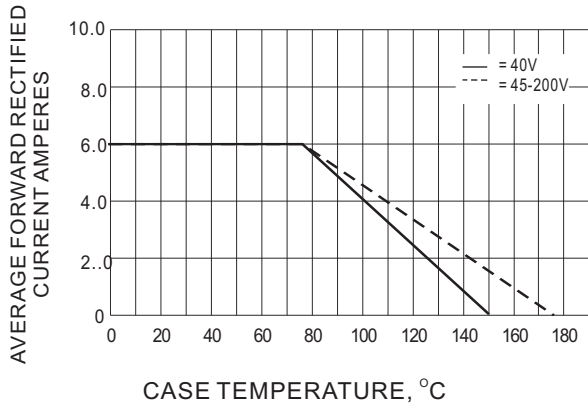


Fig.1- FORWARD CURRENT DERATING CURVE

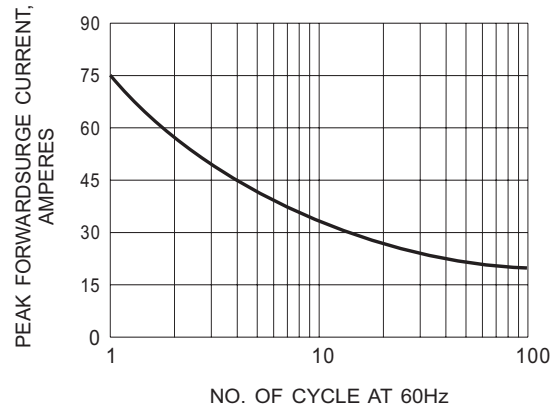


Fig.2- MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

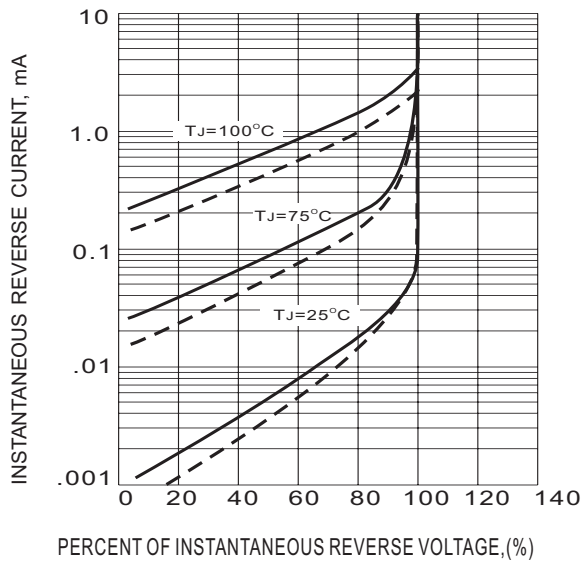


Fig.3- TYPICAL REVERSE CHARACTERISTIC

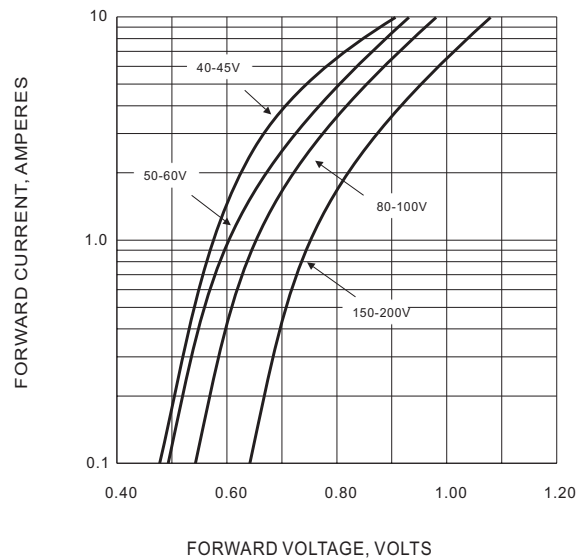


Fig.4- TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

PRELIMINARY