

Pb Free Plating Product

SBR60A45CT



60 Ampere, 45 Volt Dual Common Cathode Super Schottky Barrier Rectifier

Features

- ★ ThinkiSemi matured super barrier schottky
- ★ Low forward voltage drop
- ★ High current capability
- ★ Low reverse leakage current
- ★ High surge current capability

Application

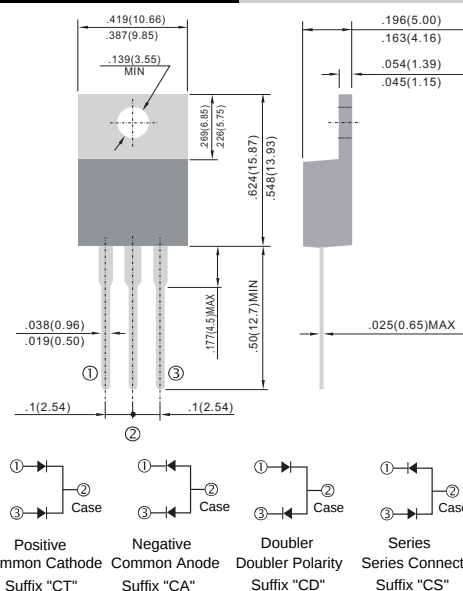
- ★ Inverter/UPS
- ★ Plating Power Supply/SMPS
- ★ Car Audio Amplifier and Sound Device System

Mechanical Data

- ★ Case: Heatsink Open Metal TO-220AB outline
- ★ Epoxy: UL 94V-0 rate flame retardant
- ★ Terminals: Solderable per MIL-STD-202 method 208
- ★ Polarity: As marked on diode body
- ★ Mounting position: Any
- ★ Weight: 2.0 gram approximately

TO-220AB/TO-220-3L

Unit : inch (mm)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	SBR60A45CT	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	32	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward rectified current	$I_{F(AV)}$	60	A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I_{FSM}	250	A
Maximum instantaneous forward voltage (Note 1) $I_F = 30\text{A}, T_J=25^\circ\text{C}$ $I_F = 30\text{A}, T_J=125^\circ\text{C}$ $I_F = 60\text{A}, T_J=25^\circ\text{C}$ $I_F = 60\text{A}, T_J=125^\circ\text{C}$	V_F	0.55 0.53 0.73 0.76	V
Maximum reverse current @ rated V_R $T_J=25^\circ\text{C}$ $T_J=125^\circ\text{C}$	I_R	0.1 40	mA
Voltage rate of change (Rated V_R)	dV/dt	10000	V/ μs
Typical thermal resistance	$R_{\theta JC}$	1.5	$^\circ\text{C/W}$
Operating junction temperature range	T_J	- 55 to +150	$^\circ\text{C}$
Storage temperature range	T_{STG}	- 55 to +175	$^\circ\text{C}$

Note 1: Pulse test with $PW=300\mu\text{s}$, 1% duty cycle

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^{\circ}\text{C}$ unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

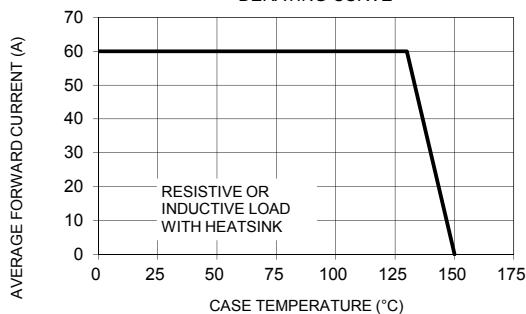


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

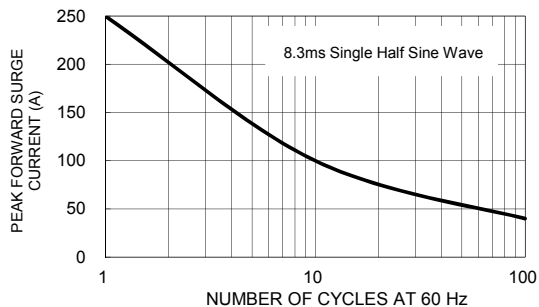


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

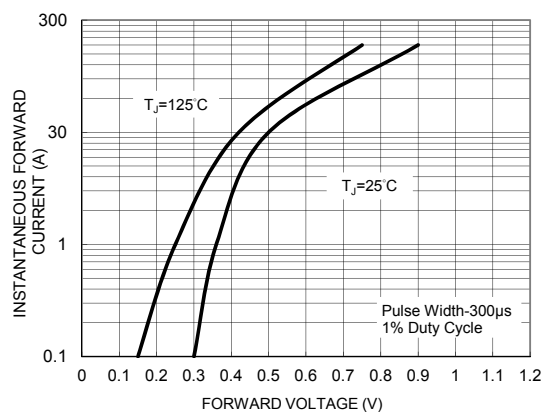


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

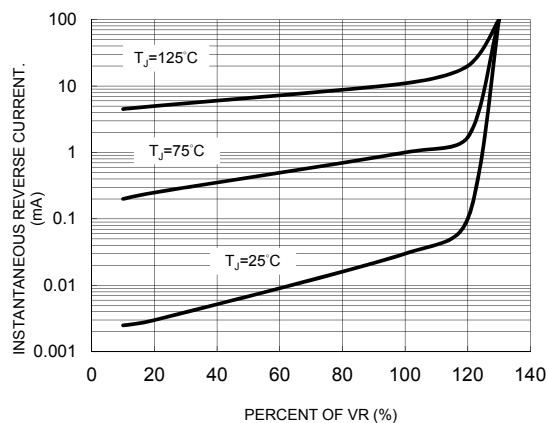


FIG. 5 TYPICAL JUNCTION CAPACITANCE

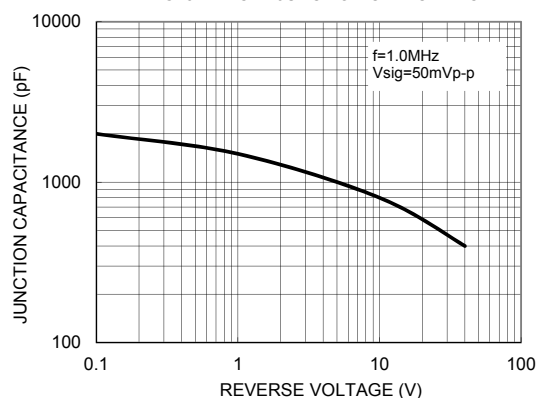


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

