

Pb Free Plating Product

M6045C



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

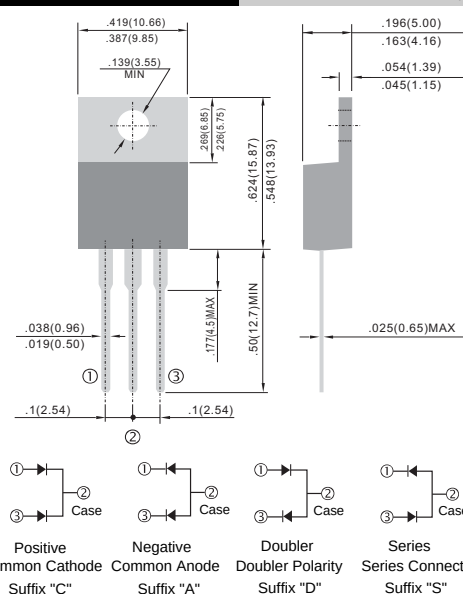
- ★ Inverter/UPS
- ★ Plating Power Supply/SMPS
- ★ Car Audio Amplifier and Sound Device System

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°C unless otherwise noted)**

PARAMETER	SYMBOL	M6045C	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 = 30A, T _J =25°C I _F = 30A, T _J =125°C I _F = 60A, T _J =25°C I _F = 60A, T _J =125°C	V _F	0.55 0.53 0.73 0.76	V
Maximum reverse current @ rated V _R T _J =25°C T _J =125°C	I _R	0.1 40	mA
Voltage rate of change (Rated V _R)	dV/dt	10000	V/μs
Typical thermal resistance	R _{θJC}	1.5	°C/W
Operating junction temperature range	T _J	- 55 to +150	°C
Storage temperature range	T _{STG}	- 55 to +175	°C

Note 1: Pulse test with PW=300μs, 1% duty cycle

RATINGS AND CHARACTERISTICS CURVES

(T_A=25°C unless otherwise noted)

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

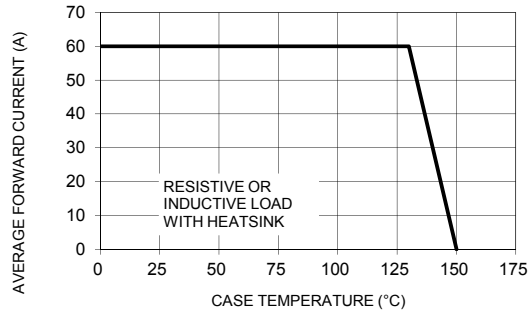


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

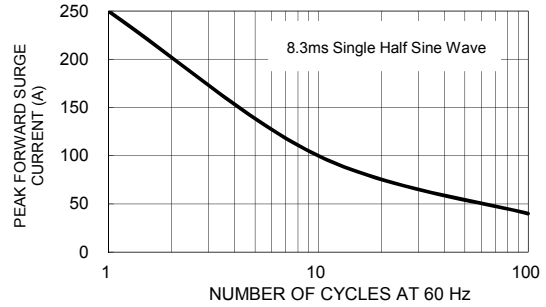


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

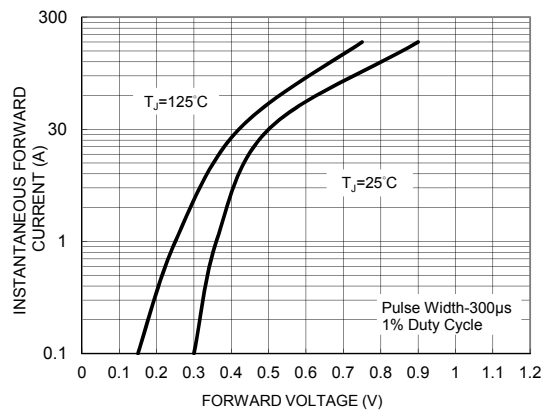


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

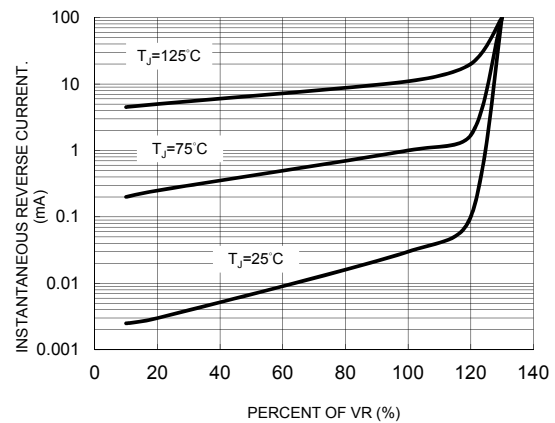


FIG. 5 TYPICAL JUNCTION CAPACITANCE

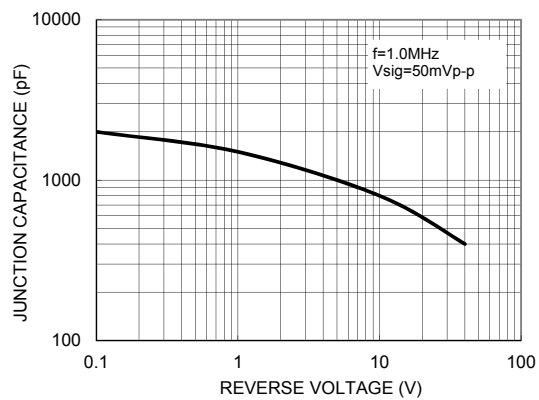


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

