

Pb Free Plating Product

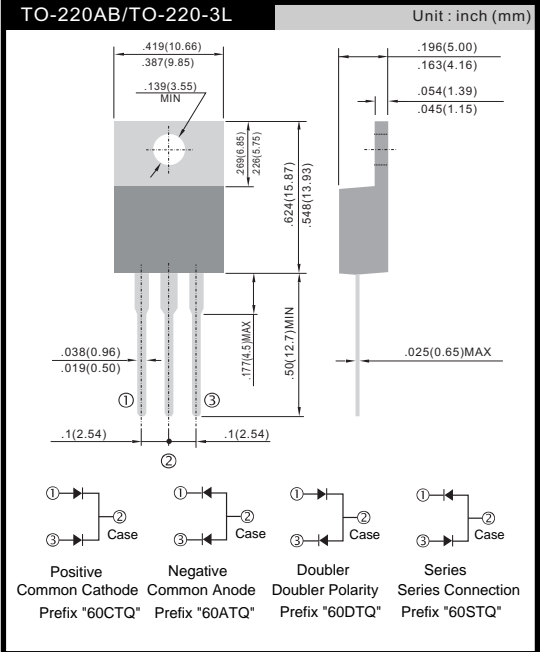
VS-60CTQ045-M3



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



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	VS-60CTQ045-M3	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)	V _F	I _F = 30A, T _J =25°C	V
I _F = 30A, T _J =125°C		0.55	
I _F = 60A, T _J =25°C		0.53	
I _F = 60A, T _J =125°C		0.73	
Maximum reverse current @ rated V _R	I _R	T _J =25°C	0.1
		T _J =125°C	40
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

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

FIG. 1 MAXIMUM FORWARD CURRENT DERATING CURVE

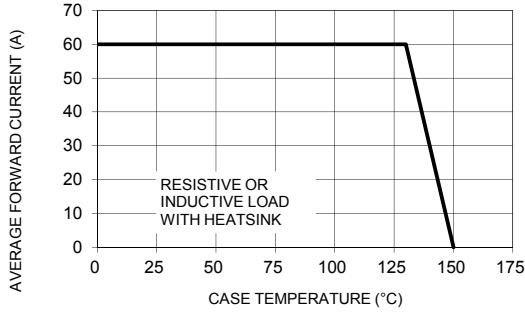


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

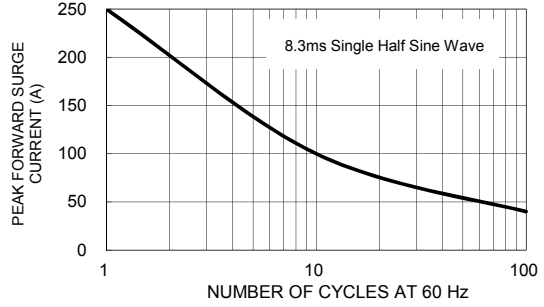


FIG. 3 TYPICAL FORWARD CHARACTERISTICS PER LEG

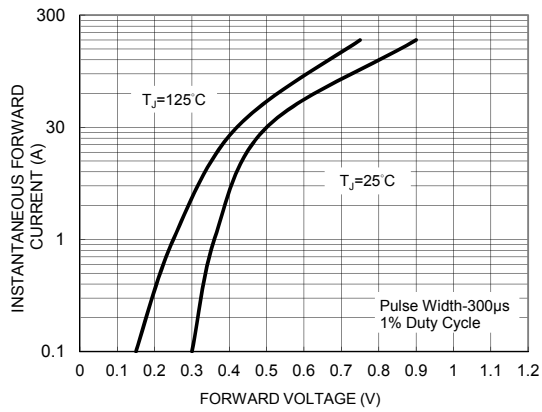


FIG. 4 TYPICAL REVERSE CHARACTERISTICS PER LEG

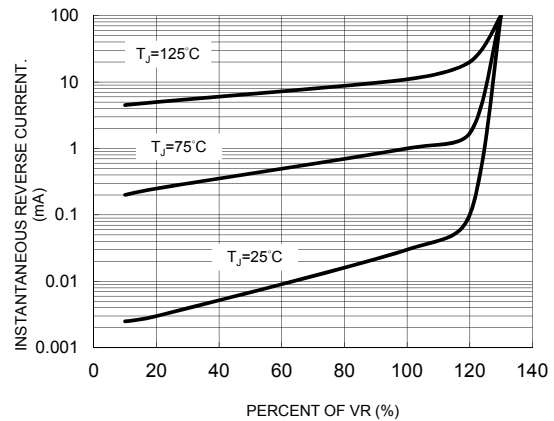


FIG. 5 TYPICAL JUNCTION CAPACITANCE

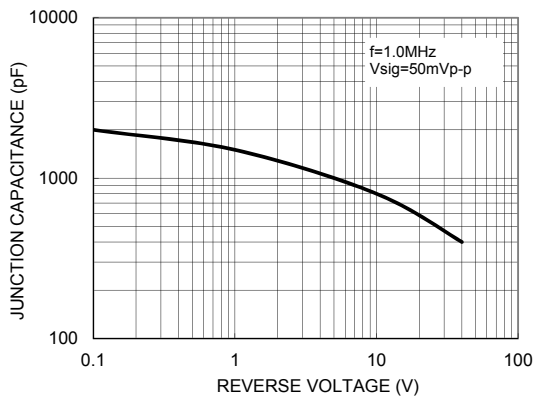


FIG. 6 TYPICAL TRANSIENT THERMAL IMPEDANCE PER LEG

