

Pb Free Plating Product

S16C20A thru S16C150A



16.0 Amperes Heatsink Dual Common Anode Schottky Half Bridge Rectifiers

Features

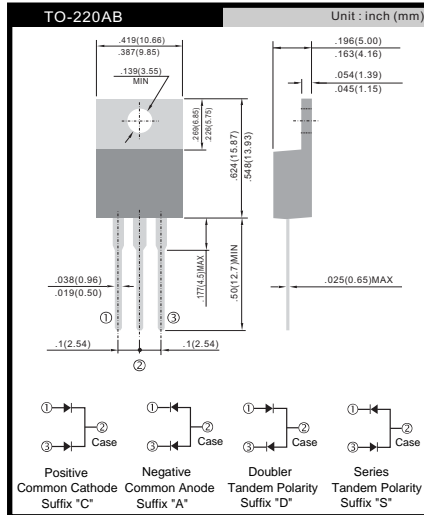
- * Standard MBR matured technology with high reliability
- * Low forward voltage drop
- * High current capability
- * Low reverse leakage current
- * High surge current capability

Application

- * Automotive Inverters/Solar Inverters
- * Plating Power Supply, SMPS and UPS
- * Car Audio Amplifiers and Sound Device Systems

Mechanical Data

- * Case: Heatsink TO-220AB open type
- * 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	S16C 20A	S16C 30A	S16C 40A	S16C 50A	S16C 60A	S16C 90A	S16C 100A	S16C 150A	UNIT
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	90	100	150	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	63	70	105	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	90	100	150	V
Maximum average forward rectified current	I _{F(AV)}	16								A
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	170								A
Maximum instantaneous forward voltage (Note 1) I _F = 8 A	V _F	0.55		0.70		0.90		1.05		V
Maximum reverse current @ rated VR T _J =25°C T _J =100°C	I _R	0.5				0.1				mA
		15		10		5				
Voltage rate of change (Rated V _R)	dV/dt	10000								V/μs
Typical thermal resistance	R _{θJC}	2.5								°C/W
Operating junction temperature range	T _J	- 55 to +125				- 55 to +150				°C
Storage temperature range	T _{STG}	- 55 to +150								°C

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

RATINGS AND CHARACTERISTICS CURVES

(TA=25°C unless otherwise noted)

FIG. 1- MAXIMUM FORWARD CURRENT DERATING CURVE

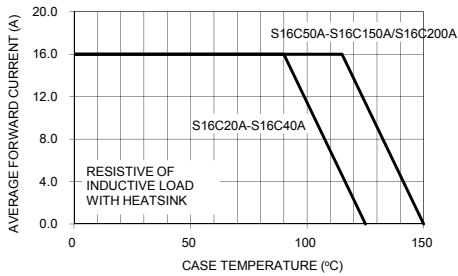


FIG. 2- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT PER LEG

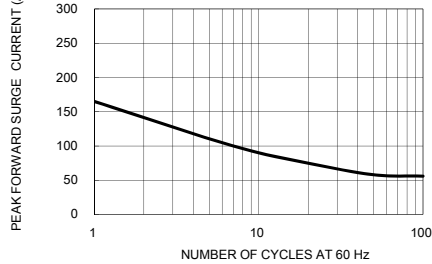


FIG. 3- TYPICAL FORWARD CHARACTERISTICS PER LEG

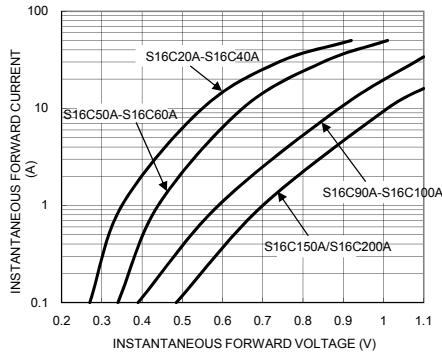


FIG. 4- TYPICAL REVERSE CHARACTERISTICS PER LEG

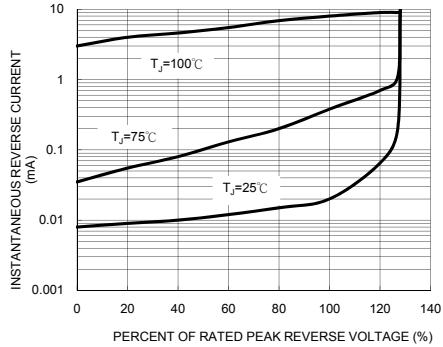


FIG. 5- TYPICAL JUNCTION CAPACITANCE PER LEG

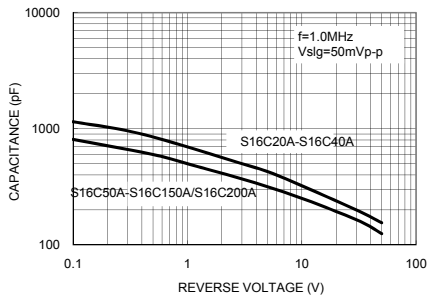


FIG. 6- TYPICAL TRANSIENT THERMAL CHARACTERISTICS

