

Pb Free Plating Product

GP1601 thru GP1607

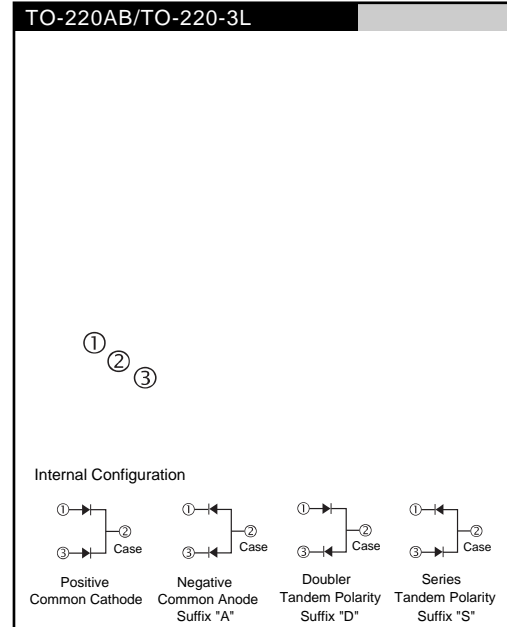


16.0 Amperes Heatsink Dual Common Cathode General Purpose Rectifiers

**Features**  
**Avalanche energy rated(100% guarantee)**  
 Low forward voltage drop  
 High current capability  
 Low reverse leakage current  
 High surge current capability

**Application**  
 PhotoVoltaic BY-PASS DIODE  
 PhotoVoltaic High-amperage Combiner Boxes  
 Alternator(Automotive Wireharness/Capacitor Bank)

**Mechanical Data**  
 Case: TO-220AB open metal heatsink package  
 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: 2.2 gram approximately



PARAMETER	SYMBOL	GP 1601	GP 1602	GP 1603	GP 1604	GP 1605	GP 1606	GP 1607	UNIT
Maximum repetitive peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	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	$I_{FSM}$	150							A
Maximum instantaneous forward voltage (Note 1) @ 8 A	$V_F$	1.1							V
Maximum reverse current @ rated $V_R$ $T_J=25^{\circ}C$ $T_J=125^{\circ}C$	$I_R$	10 250							A
Typical junction capacitance (Note 2)	$C_J$	50							pF
Typical thermal resistance	$R_{JC}$	1.5							$^{\circ}C/W$
Operating junction temperature range	$T_J$	- 55 to +150							$^{\circ}C$
Storage temperature range	$T_{STG}$	- 55 to +150							$^{\circ}C$

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

Note 2: Measured at 1 MHz and applied reverse voltage of 4.0 V DC.

RATINGS AND CHARACTERISTICS CURVES

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

FIG.1 MAXIMUM FORWARD CURRENT DERATING CURVE

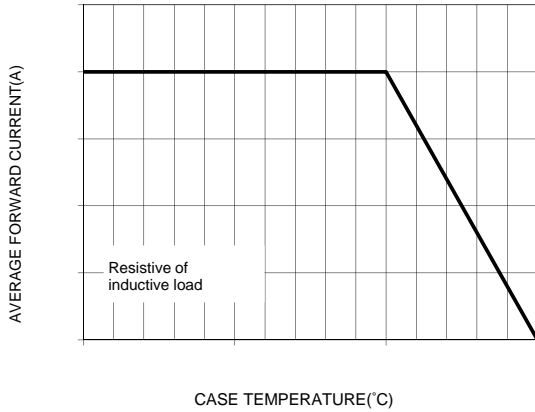


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

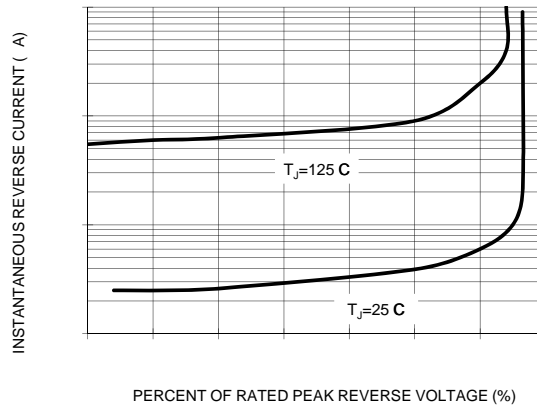


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

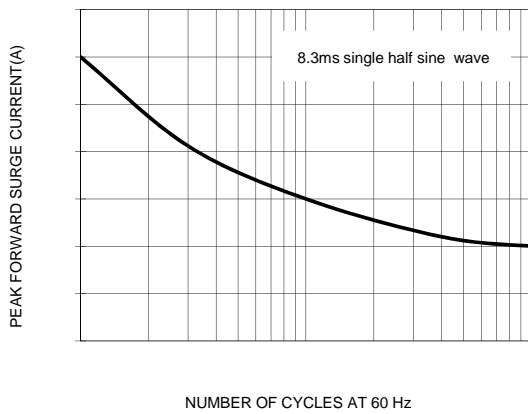


FIG. 4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

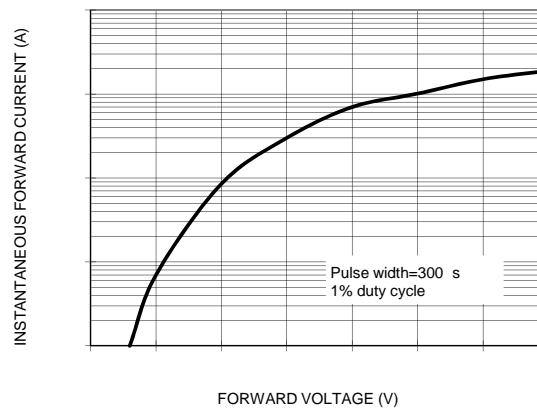
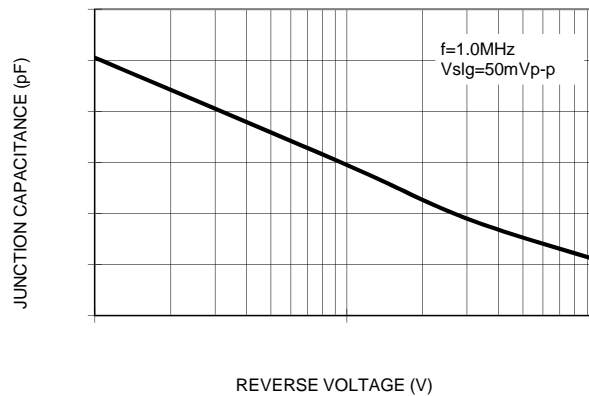
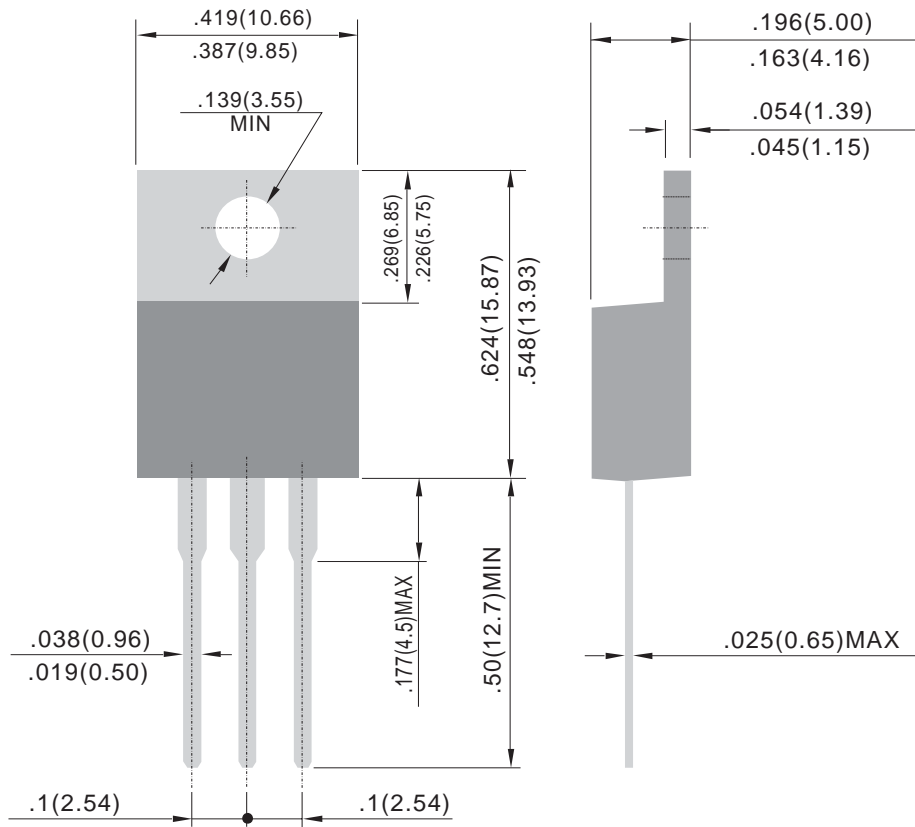


FIG. 5 TYPICAL JUNCTION CAPACITANCE



TO-220AB/TO-220-3L Package Outline Dimensions:



Unit : inch (mm)