

# FST31180 to FST31200

# Dual Schottky Barrier Rectifiers

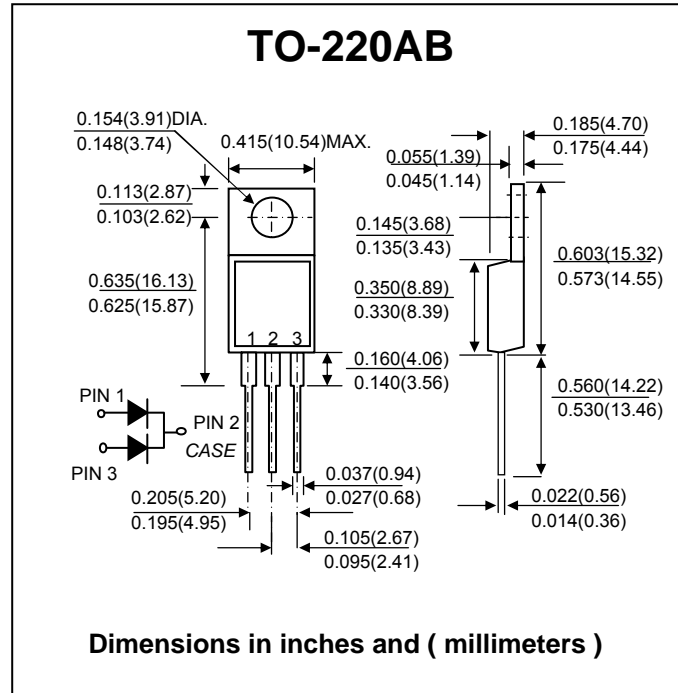
**PRV : 180 - 200 Volts**  
**Io : 30 Ampere**

### FEATURES :

- \* Guard ring for reverse protection
- \* Low power loss
- \* High efficiency
- \* High surge capacity
- \* **Pb / RoHS Free**

### MECHANICAL DATA :

- \* Case : JEDEC TO-220AB molded plastic body
- \* Terminals: Plated leads, solderable per MIL-STD-750 Method 2026
- \* Polarity: As marked
- \* Mounting Position: Any
- \* Weight : 2.24 grams (Approximately)



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (Ta = 25°C unless otherwise noted.)

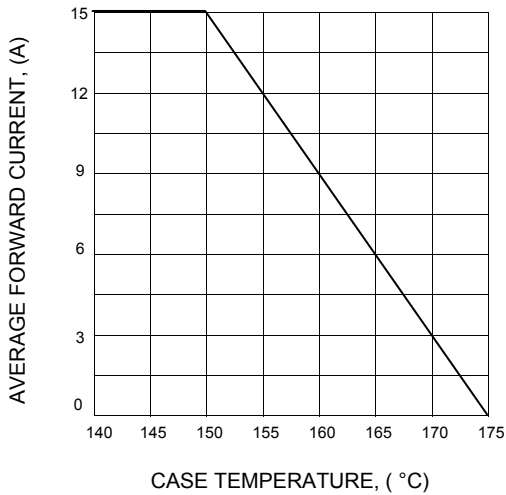
PARAMETER	SYMBOL	FST31180	FST31200	UNIT
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	180	200	V
Maximum Average Forward Rectified Current at $T_C = 150^\circ\text{C}$	$I_{F(AV)}$	30		A
Total device				
Per Leg		15		
Maximum Peak Forward Surge Current, 8.3ms single half sine-wave superimposed on rated load Per Leg	$I_{FSM}$	250		A
Maximum Instantaneous Forward Voltage Per Leg <sup>(1)</sup>	$V_F$	0.83		V
at $I_F = 15\text{ A}$ , $T_J = 25^\circ\text{C}$				
$I_F = 15\text{ A}$ , $T_J = 175^\circ\text{C}$		0.62		
Maximum Reverse Current Per Leg at Working Peak Reverse Voltage <sup>(1)</sup>	$I_R$	100		$\mu\text{A}$
$T_J = 25^\circ\text{C}$				
$T_J = 125^\circ\text{C}$	$I_{R(H)}$	400		$\mu\text{A}$
Typical Junction Capacitance ( $V_R = 5\text{ V}$ , $T_J = 25^\circ\text{C}$ )	$C_J$	295		pF
Maximum Thermal Resistance, Junction to Case, Per Leg	$R_{\theta JC}$	2.0		$^\circ\text{C/W}$
Operating Junction Temperature Range	$T_J$	- 55 to + 175		$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	- 55 to + 175		$^\circ\text{C}$

**Note :**

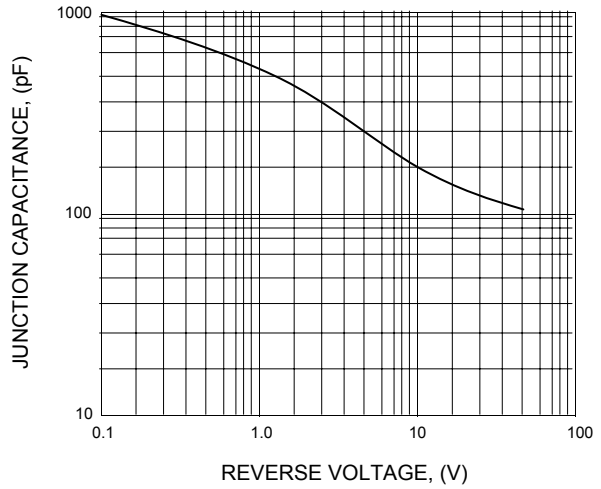
(1) Pulse Test: Pulse Width 300  $\mu\text{s}$ , Duty Cycle 2%.

**RATING AND CHARACTERISTIC CURVES ( FST31150 ~ FST31200 )**

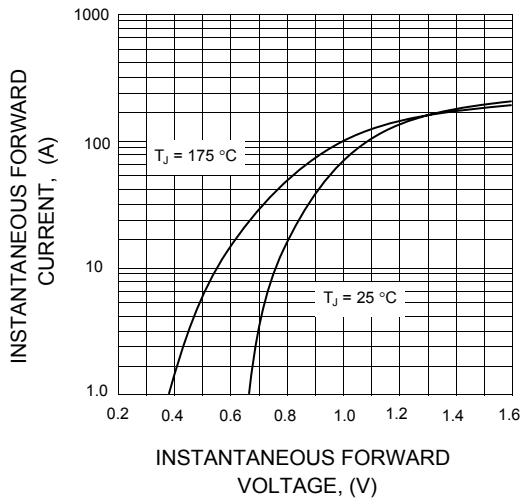
**FIG.1 - FORWARD CURRENT DERATING PER LEG**



**FIG.2 - TYPICAL JUNCTION CAPACITANCE PER LEG**



**FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG**

