

FST31120 to FST31150 Dual Schottky Barrier Rectifiers

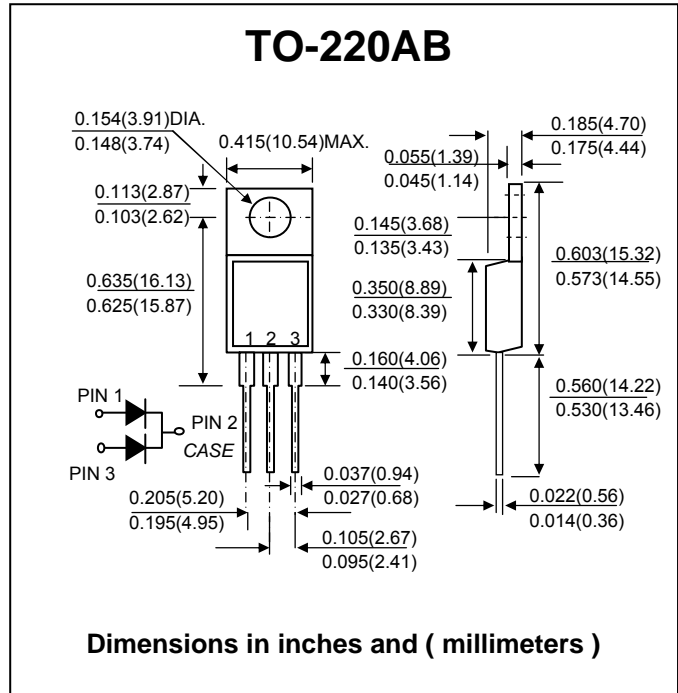
PRV : 120 - 150 Volts
Io : 30 Ampere

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	FST31120	FST31130	FST31150	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	120	130	150	V
Maximum Average Forward Rectified Current at $T_C = 153^\circ\text{C}$	$I_{F(AV)}$	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 ⁽¹⁾	V_F	0.85			V
at $I_F = 15\text{ A}$, $T_J = 25^\circ\text{C}$ $I_F = 15\text{ A}$, $T_J = 125^\circ\text{C}$		0.72			
Maximum Reverse Current Per Leg at Working Peak Reverse Voltage ⁽¹⁾	I_R	250			μA
$T_J = 25^\circ\text{C}$		1.0			mA
$T_J = 125^\circ\text{C}$					
Typical Junction Capacitance ($V_R = 5\text{ V}$, $T_J = 25^\circ\text{C}$)	C_J	350			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 μs , Duty Cycle 2%.

RATING AND CHARACTERISTIC CURVES (FST31120 ~ FST31150)

FIG.1 - FORWARD CURRENT DERATING PER LEG

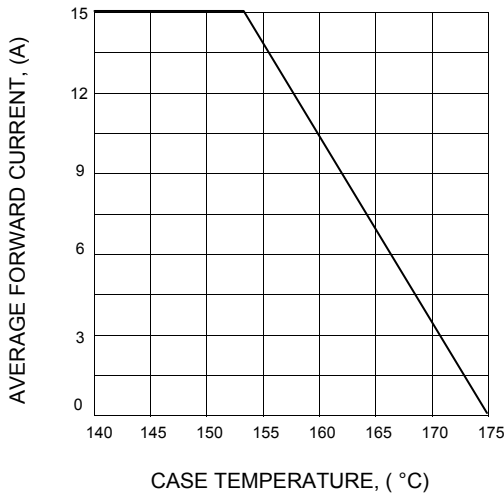


FIG.2 - TYPICAL JUNCTION CAPACITANCE PER LEG

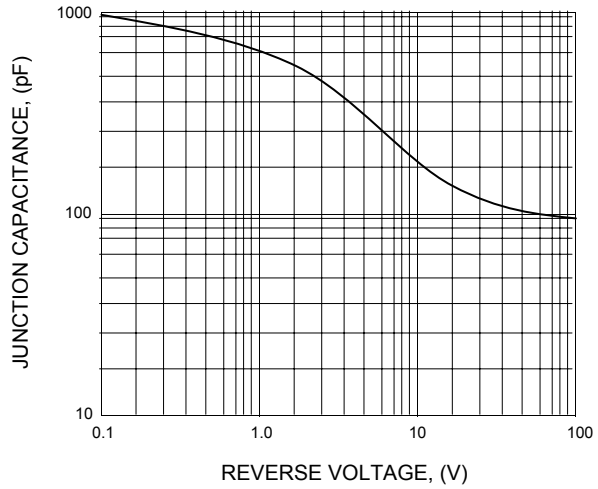


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

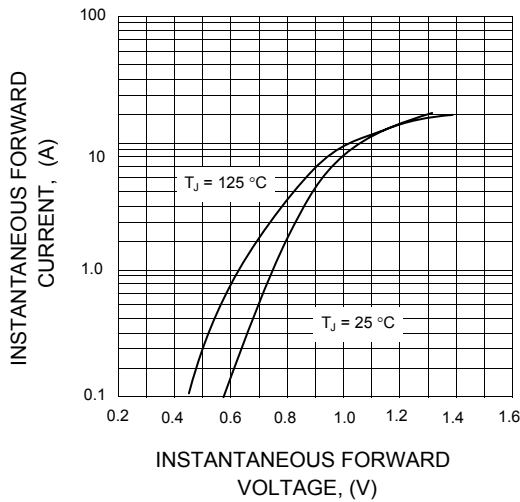


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG

