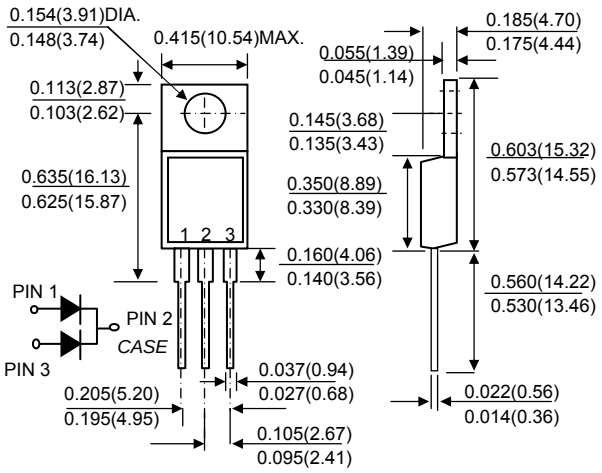
FST31120 to FST31150 Dual Schottky Barrier Rectifiers

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)

TO-220AB



Dimensions in inches and (millimeters)

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 °C — Total device	$I_{F(AV)}$	30			A
Maximum Average Forward Rectified Current at T_C = 153 °C — Per Leg	$I_{F(AV)}$	15			A
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) — at I_F = 15 A, T_J = 25 °C	V_F	0.85			V
Maximum Instantaneous Forward Voltage Per Leg (1) — I_F = 15 A, T_J = 125 °C	V_F	0.72			V
Maximum Reverse Current Per Leg at Working Peak Reverse Voltage (1) — T_J = 25°C	I_R	250			µA
Maximum Reverse Current Per Leg at Working Peak Reverse Voltage (1) — T_J = 125 °C	$I_{R(H)}$	1.0			mA
Typical Junction Capacitance (V_R = 5 V, T_J = 25 °C)	C_J	350			pF
Maximum Thermal Resistance, Junction to Case, Per Leg	$R_{\theta JC}$	2.0			°C/W
Operating Junction Temperature Range	T_J	- 55 to + 175			°C
Storage Temperature Range	T_{STG}	- 55 to + 175			°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

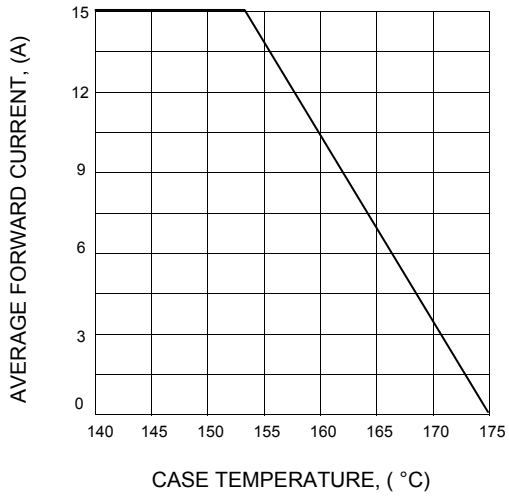


FIG.2 - TYPICAL JUNCTION CAPACITANCE PER LEG

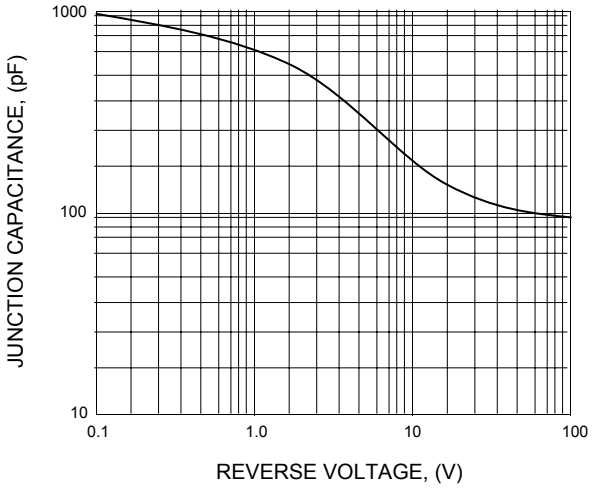


FIG.3 - TYPICAL FORWARD CHARACTERISTICS PER LEG

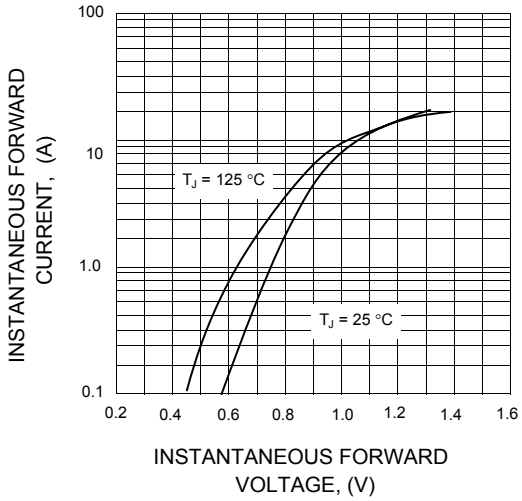


FIG. 4 - TYPICAL REVERSE CHARACTERISTICS PER LEG