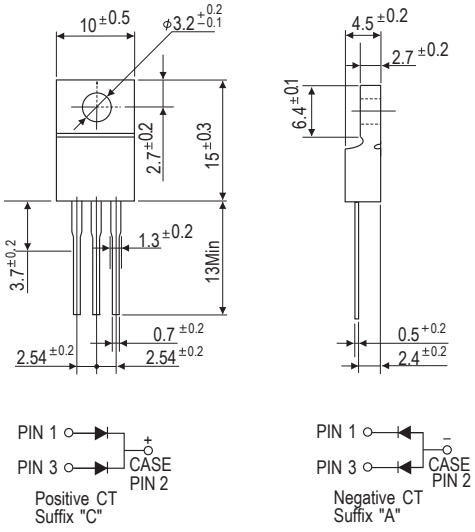
SBP1535 THRU SBP1560

CURRENT 15.0Amperes
VOLTAGE 35 to 60 Volts

Features

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- Dual rectifier construction
- High temperature soldering guaranteed : 250℃/10 seconds, 0.25" (6.35mm) from case

ITO-220



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC ITO-220 molded plastic body
- Terminals : Lead solderable per MIL-STD-750, Method 2026
- Polarity : As marked. No suffix indicates Common Cathode, suffix "A" indicates Common Anode
- Mounting Position : Any
- Weight : 0.08 ounce, 2.24 grams

Maximum Ratings and Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%)

		Symbols	SBP1535	SBP1545	SBP1550	SBP1560	Units
Maximum repetitive peak reverse voltage		V_{RRM}	35	45	50	60	Volts
Maximum RMS voltage		V_{RMS}	25	32	35	42	Volts
Maximum DC blocking voltage		V_{DC}	35	45	50	60	Volts
Maximum average forward rectified current at Tc=105℃ per diode/per device		$I_{(AV)}$	7.5 15.0				Amps Amps
Repetitive peak forward current(square wavr, 20KHZ) at Tc=105℃ per diode		I_{FRM}	15.0				Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	150.0				Amps
Maximum instantaneous forward voltage at 7.5A (Note 1)		V_F	0.65		0.75		Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	T_A=25℃	I_R	1.0				mA
	T_A=125℃		15		50		
Typical thermal resistance (Note 2)		$R\Theta_{JC}$	2.5				℃/W
Operating junction temperature range		T_J	-65 to +150				℃
Storage temperature range		T_{STG}	-65 to +175				℃

Notes:
(1) Pulse test: 300μS pulse width, 1% duty cycle
(2) Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC CURVES SBP1535 THRU SBP1560

FIG.1-FORWARD CURRENT DERATING CURVE

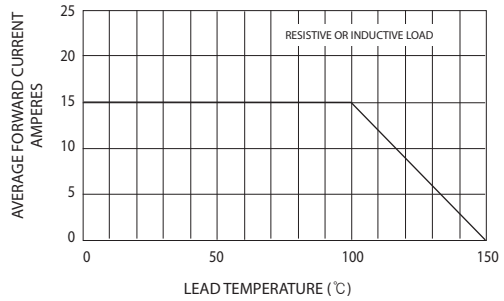


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

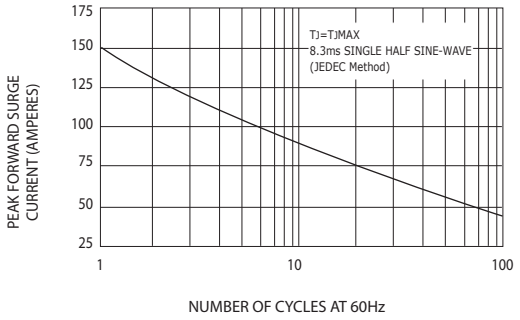


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

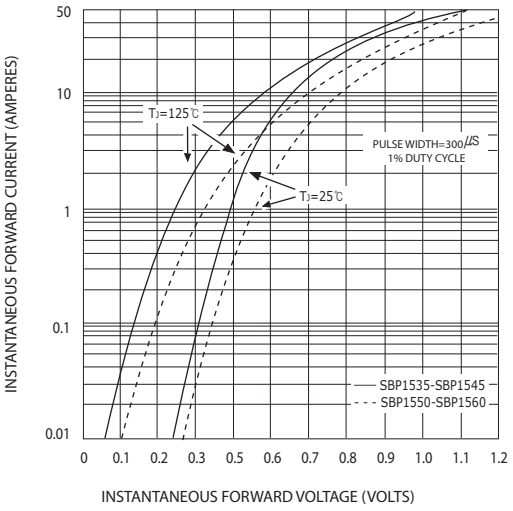


FIG.4-TYPICAL REVERSE CHARACTERISTICS

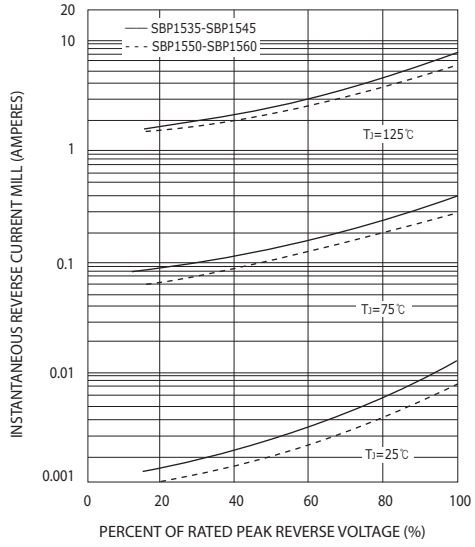


FIG.5-TYPICAL JUNCTION CAPACITANCE

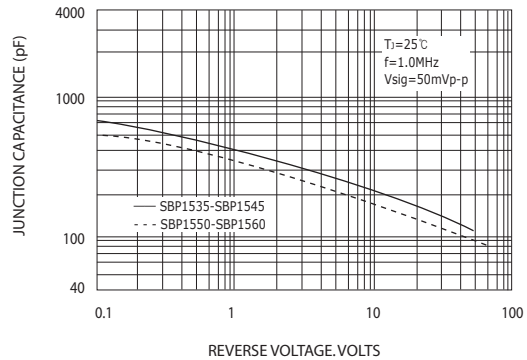


FIG.6-TYPICAL TRANSIENT THERMAL IMPEDANCE

