



DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SPB2045C
THRU
SPB2050C

TECHNICAL SPECIFICATIONS OF SOLAR CELL PROTECTION SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 45 to 50 Volts

CURRENT - 20 Amperes

FEATURES

- * Low power loss, high efficiency
- * High current capability
- * High surge capability
- * High reliability

MECHANICAL DATA

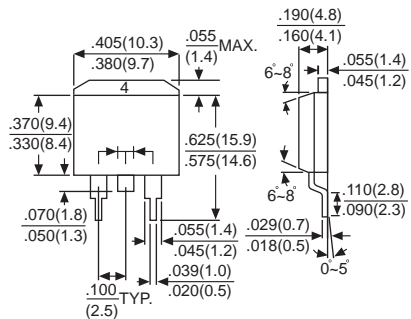
- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Lead: MIL-STD-202E, Method 208 guaranteed
- * Mounting position: Any
- * Weight: 1.7 gram

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.



TO-263(D²PAK)



Dimensions in inches and (millimeters)

	SYMBOL	SPB2045C	SPB2050C	UNITS
Maximum Recurrent Peak Reverse Voltage	VRRM	45	50	Volts
Maximum RMS Voltage	VRMS	31.5	31.5	Volts
Maximum DC Blocking Voltage	VDC	45	50	Volts
Maximum Average Forward Rectified Current at Derating Case Temperature	Io	20		Amps
Peak Forward Surge Current IFSM(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	IFSM	275		Amps
Maximum Forward Voltage at 10A DC	VF	0.55		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@ Tc = 25°C	0.5		mAmps
	@ Tc = 100°C	50		
Typical Thermal Resistance (Note 1)	RθJC	1.5		°C/W
Operating and Storage Temperature Range	TJ, TSTG	-65 to +150		°C

Note : 1. Thermal Resistance Junction to Case per leg.
2. Measured at 1 MHz and applied reverse voltage of 4.0 volts.

RATING AND CHARACTERISTIC CURVES (SPB2045C THRU SPB2050C)

FIG.1
TYPICAL FORWARD CURRENT DERATING CURVE

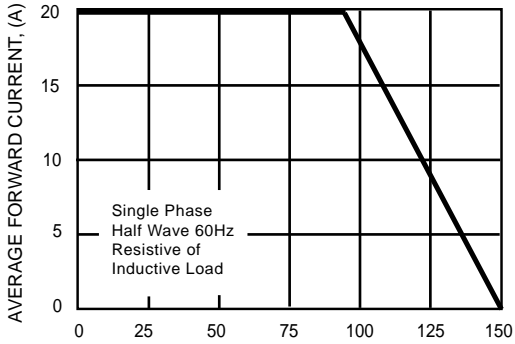


FIG.2
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

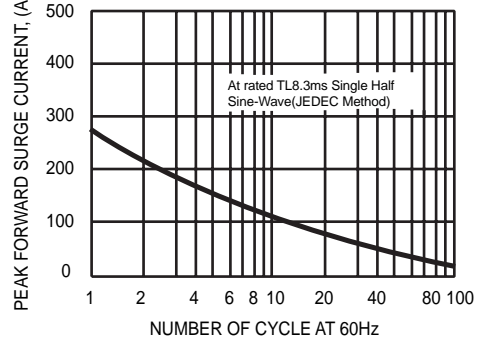


FIG.3
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

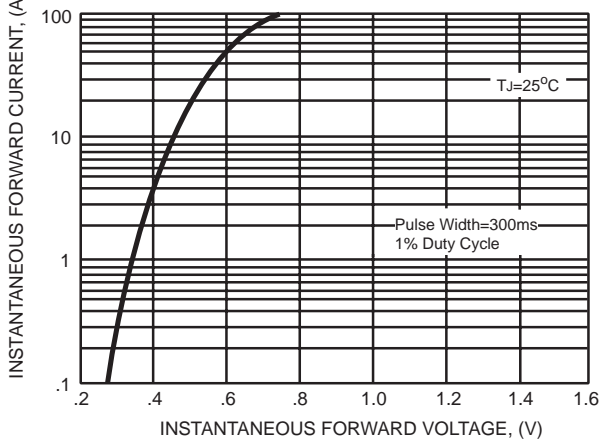


FIG.4
TYPICAL REVERSE CHARACTERISTICS

