DC COMPONENTS CO., LTD.

RECTIFIER SPECIALISTS

SPA2040 THRU SPA2045

TECHNICAL SPECIFICATIONS OF SOLAR CELL PROTECTION SCHOTTKY BARRIER RECTIFIER

VOLTAGE RANGE - 40 to 45 Volts *CURRENT - 20 Amperes*

FEATURES

* Low power loss, high eifficiency
* High current capability
* High surge capability
* High reliability

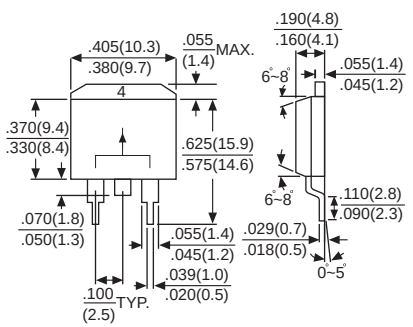
MECHANICAL DATA

* 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(D^2PAK)



Dimensions in inches and (millimeters)

		SYMBOL	SPA2040	SPA2045	UNITS
Maximum Recurrent Peak Reverse Voltage		V_{RRM}	40	45	Volts
Maximum RMS Voltage		V_{RMS}	28	31.5	Volts
Maximum DC Blocking Voltage		V_{DC}	40	45	Volts
Maximum Average Forward Rectified Current at Derating Csae Temperature		I_O	20		Amps
Peak Forward Surge Current I_{FM}(surge): 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)		I_{FSM}	300		Amps
Maximum Forward Voltage at 20A DC		V_F	0.62		Volts
Maximum DC Reverse Current at Rated DC Blocking Voltage	@T_C = 25°C	I_R	0.5		mAmps
	@T_C = 100°C		50		
Typical Thermal Resistance (Note 1)		$R_{\theta JC}$	1.5		°C/W
Operating and Storage Temperature Range		T_J, T_{STG}	-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 (SPA2040 THRU SPA2045)

FIG.1
TYPICAL FORWARD CURRENT DERATING CURVE

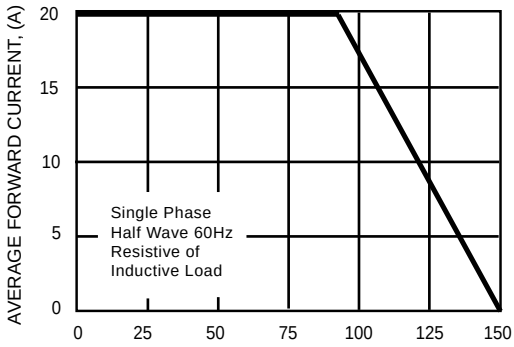


FIG.2
MAXIMUM NON-REPETITIVE FORWARD
SURGE CURRENT

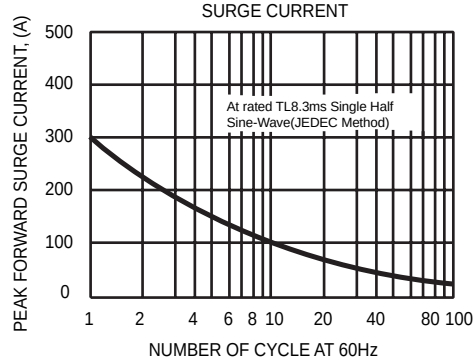


FIG. 3
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

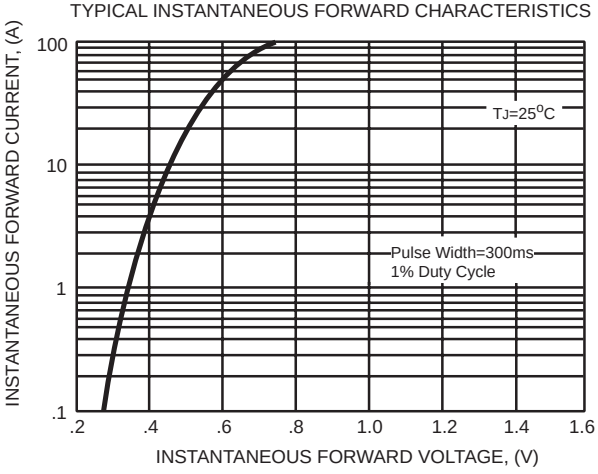


FIG. 4
TYPICAL REVERSE CHARACTERISTICS