

S5P45R

5.0AMPS. PLANAR MOS SCHOTTKY BARRIER RECTIFIERS

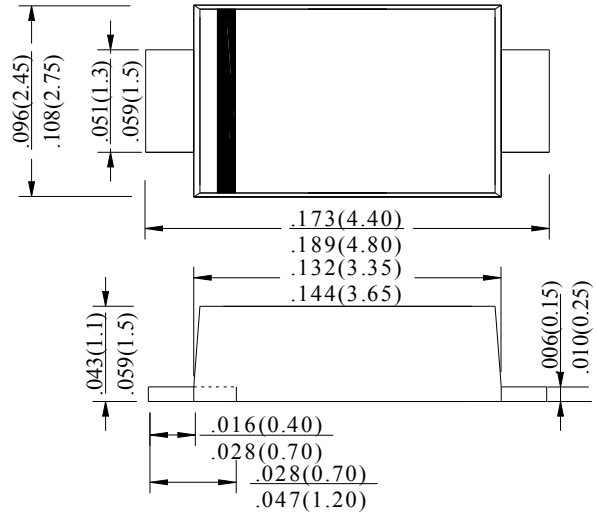
FEATURE

- . For surface mounted application
- . High current capability
- . Low forward voltage drop
- . Low power loss, high efficiency
- . High surge current capability
- . High temperature soldering guaranteed
260°C/10 seconds at terminals.

MECHANICAL DATA

- . Terminal: Solder plated
- . Case: Molded with UL-94 Class V-0 recognized
Flame Retardant Epoxy (free halogen)
- . Polarity: color band denotes cathode
- . Packaging: 12mm tape per EIA STD RS-481

SMF



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%

Type Number	SYM BOL	S5P45R	units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	45	V
Maximum RMS Voltage	V_{RMS}	31.5	V
Maximum DC blocking Voltage	V_{DC}	45	V
Maximum Average Forward Rectified Current	$I_{F(AV)}$	5.0	A
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	120.0	A
Maximum Forward Voltage @ $T_A=25^\circ\text{C}$	at 5.0A DC	$V_{F\text{Max}}$	0.45
	at 1.0A DC	$V_{F\text{Type}}$	0.33
Maximum DC Reverse Current at rated DC blocking voltage	@ $T_A=25^\circ\text{C}$	I_R	0.2
	@ $T_A=100^\circ\text{C}$		10.0
Electrostatic discharge (ESD) test under IEC61000-4-2	Contact	8	KV
Typical Junction Capacitance (Note1)	C_J	500	pF
Typical Thermal Resistance (Note2)	$R_{(JL)}$	50	°C/W
	$R_{(JC)}$	29	
Storage Temperature	T_{STG}	-55 to +150	°C
Operating Junction Temperature	T_J	-55 to +150	°C

Note:

1. Measured at 1.0 MHz and applied reverse voltage of 4.0Vdc
2. Measured on P.C.Board with 0.2×0.2”(5.0×5.0mm)Copper Pad Areas.

RATING AND CHARACTERISTIC CURVES (S5P45R)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

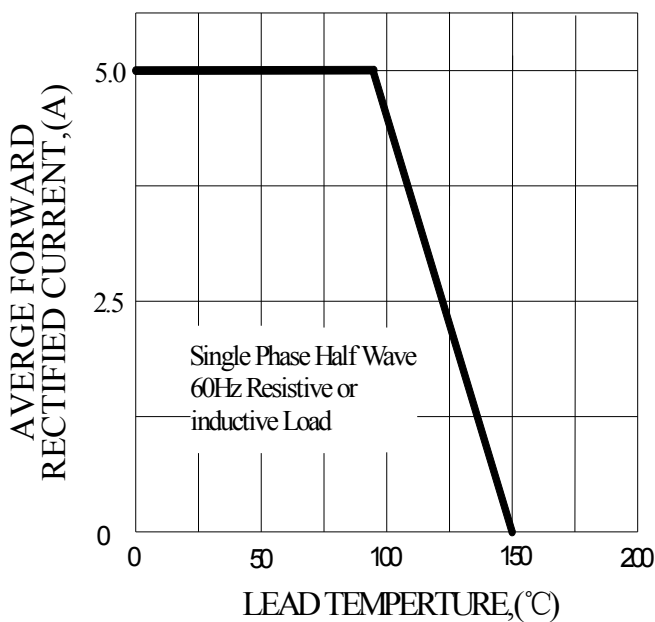


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

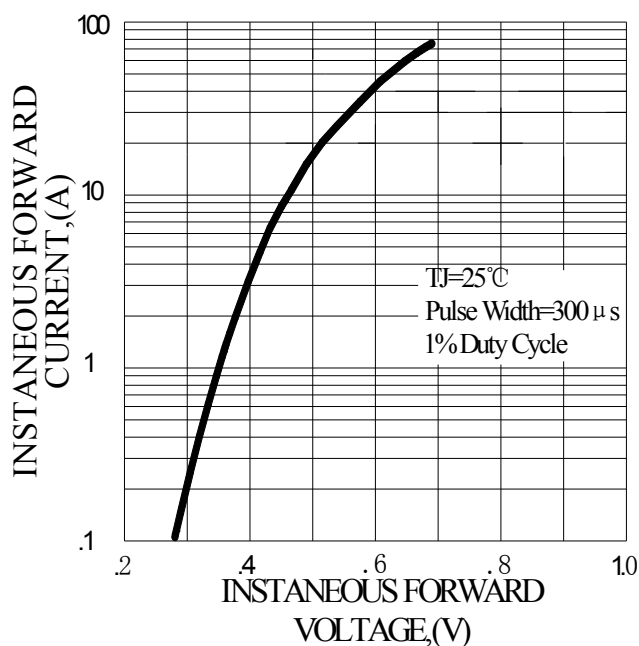


FIG.3-MAXIMUM NON-REPEITIVE FORWARD SURGE CURRENT

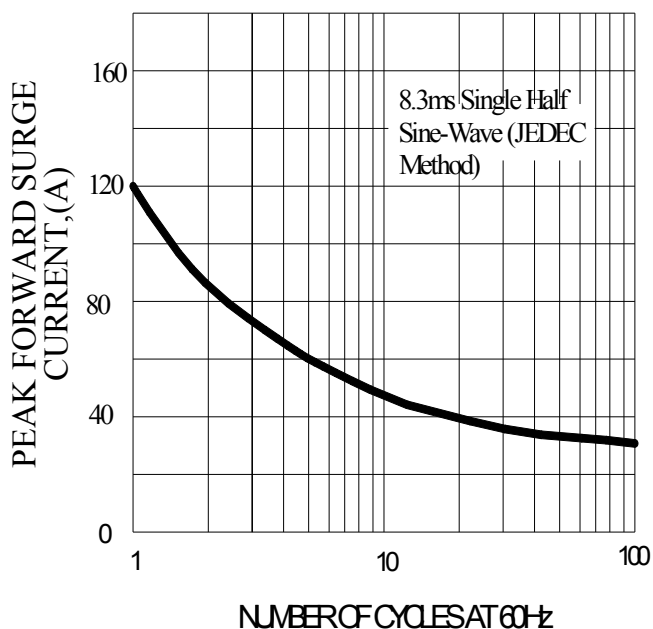
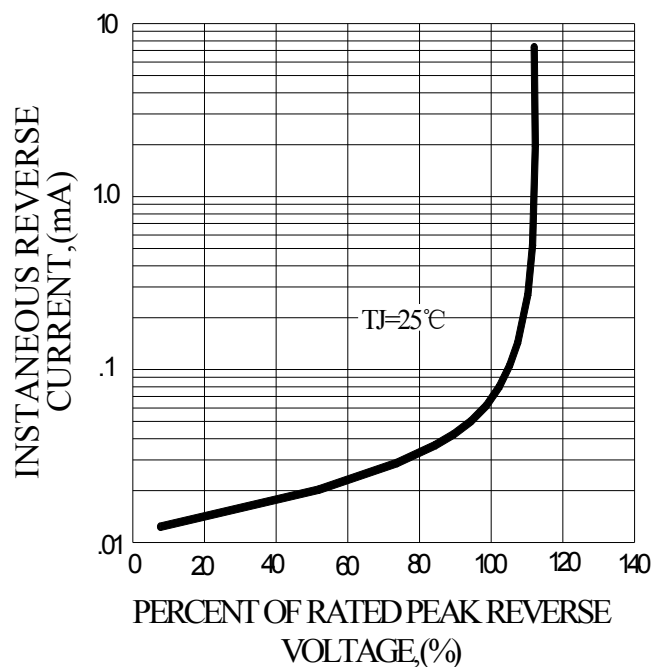
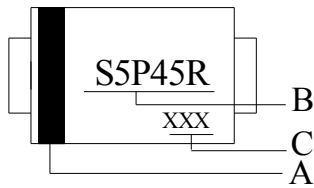


FIG.4-TYPICAL REVERSE CHARACTERISTICS



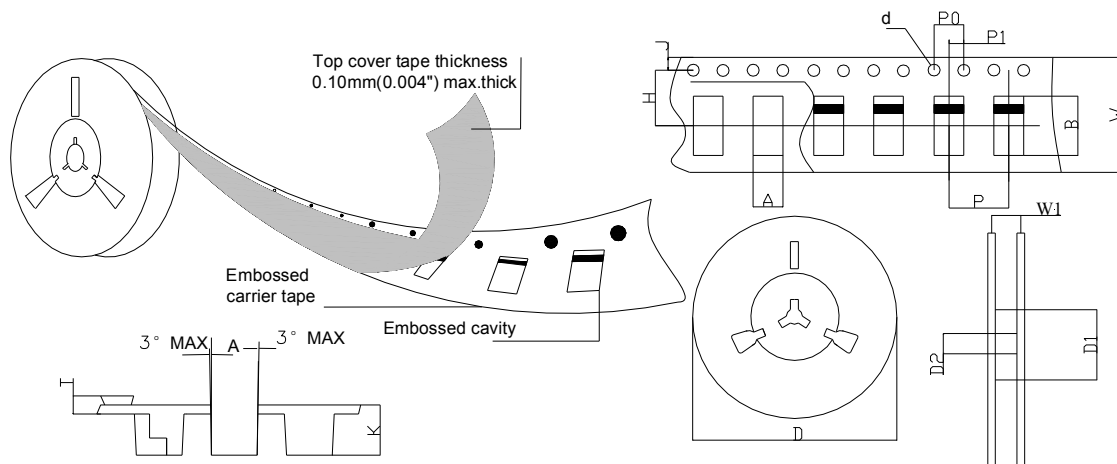
Marking and packaging illustration

1、Marking



SYMBOL	Explanation
A	Color Band Denotes Cathode
B	Product name
C	Date Code

2、Packaging



SPECIFICATIONS mm(inch)		PACKAGE
SYMBOL	ITEM	SMF
	Carrier width	A
	Carrier length	B
	Sprocket hole	d
	Reel outer diameter	D
	Reel inner diameter	D1
	Feed hole diameter	D2
	Sprocket hole position	J
	Punch hole position	H
	Carrier depth	K
	Punch hole pitch	P
	Sprocket hole pitch	P0
	Embossment center	P1
	Overall tape thickness	T
	Tape width	W
	Reel width	W1