



JSPC1045ACT-CO

10A Schottky Barrier Rectifier

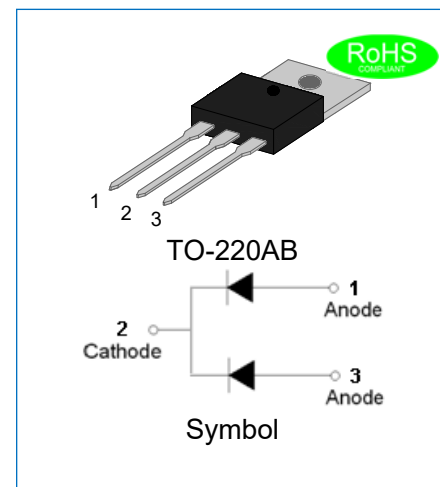
Rev.0.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ Lead free in compliance with EU RoHS 2011/65/EU directive
- ✧ Low forward voltage drop
- ✧ Low power losses, high efficiency operation
- ✧ High current capability and surge capability

MECHANICAL DATA

- ✧ Case: TO-220AB molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002



ABSOLUTE MAXIMUM RATING (Rating at 25°C ambient temperature unless otherwise specified.)

Parameter	Symbol	JSPC1045ACT-CO	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum RMS voltage	V_{RMS}	32	V
Maximum DC blocking voltage	V_{DC}	45	V
Maximum average forward current	$I_{F(AV)}$	10	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	100	A
Operating junction temperature range	T_j	-55 to +125	°C
Storage temperature range	T_{stg}	-55 to +150	°C

ELECTRICAL CHARACTERISTICS (Rating at 25°C ambient temperature unless otherwise specified.)

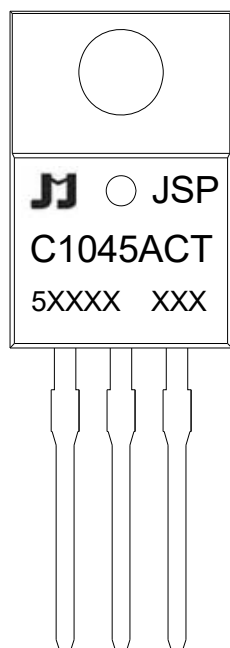
Parameter	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=5A$	V_F		0.65	V
Reverse current	$V_R=45V, T_A=25^{\circ}C$	I_R		0.1	mA
	$V_R=45V, T_A=100^{\circ}C$			40	
Junction capacitance	$V_R=4.0V, f=1MHz$	C_J	500		pF

THERMAL RESISTANCES

Symbol	Parameter	JSPC1045ACT-CO	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	2.5	°C/W



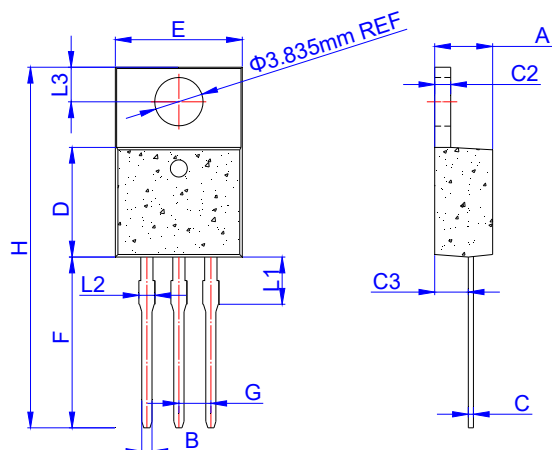
MARKING



JS	Schottky Barrier Rectifier
P	Planar technology
C	Package: TO-220AB
10	$I_{F(AV)}=10A$
45	$V_{RRM}:45V$
A	Version
CT	Common cathode

5	Year code(4:2024,5:2025,.....)
XX	Week code
XX	Chip code
XXX	Package lot number

PACKAGE MECHANICAL DATA



TO-220AB

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.45	4.60	4.75	0.175	0.181	0.187
B	0.71	0.81	0.91	0.028	0.032	0.036
C	0.30	0.40	0.50	0.012	0.016	0.020
C2	1.17	1.27	1.37	0.046	0.050	0.054
C3	2.47	2.67	2.87	0.097	0.105	0.113
D	8.50	8.70	8.90	0.335	0.343	0.350
E	9.83	10.08	10.33	0.387	0.397	0.407
F	13.30	13.55	13.80	0.524	0.533	0.543
G		2.54			0.100	
H	28.10	28.60	29.10	1.106	1.126	1.146
L1	3.54	3.74	3.94	0.139	0.147	0.155
L2	1.17	1.27	1.37	0.046	0.050	0.054
L3		2.74			0.108	

PACKAGE INFORMATION-TO-220AB

OUTLINE	UNIT WEIGHT (g/PCS) typ.	TUBE (PCS)	PER CARTON (PCS)
TUBE	1.93	50	5,000



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