



JSPK1045ACT-CO

10A Schottky Barrier Rectifier

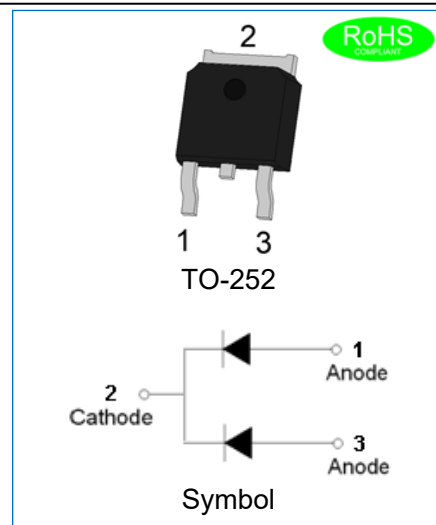
Rev.1.0

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-252 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002



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

Parameter	Symbol	JSPK1045ACT-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
Average forward current at $T_C=100^{\circ}C$	$I_{F(AV)}$	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	$^{\circ}C$
Storage temperature range	T_{stg}	-55 to +150	$^{\circ}C$

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

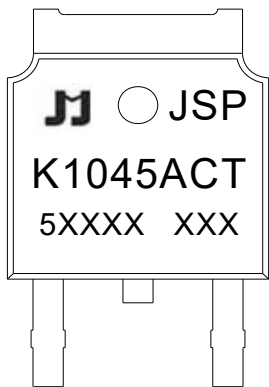
Parameter		Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=5A$	V_F			0.65	V
Reverse current	$V_R=45V, T_A=25^{\circ}C$	I_R			0.1	mA
	$V_R=45V, T_A=100^{\circ}C$				40	
Junction capacitance	$V_R=4.0V, f=1MHz$	C_J		500		pF

THERMAL RESISTANCES

Symbol	Parameter	JSPK1045ACT-CO	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	6.5	$^{\circ}C/W$



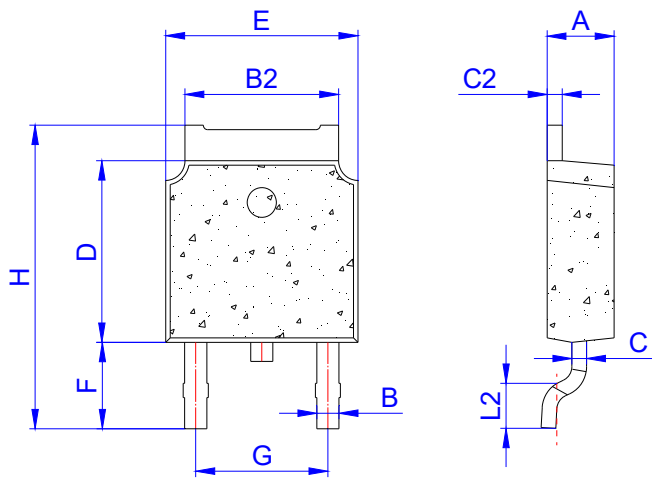
MARKING



JS	Schottky Barrier Rectifier
P	Planar technology
K	Package: TO-252
10	$I_{F(AV)}=10A$
45	$V_{RRM}:45V$
A	Version
CT	Common cathode

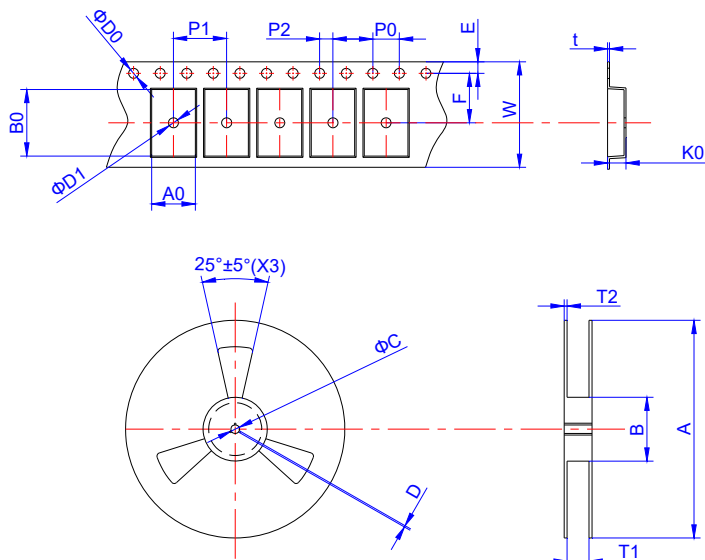
5	Year code(4:2024,5:2025,……)
XX	Week code
XX	Chip code
XXX	Package lot number

PACKAGE MECHANICAL DATA



TO-252

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10	2.30	2.50	0.083	0.091	0.098
B	0.66	0.76	0.86	0.026	0.030	0.034
B2	4.98	5.28	5.58	0.196	0.208	0.220
C	0.405	0.505	0.605	0.016	0.020	0.024
C2	0.37	0.52	0.67	0.015	0.020	0.026
D	5.80	6.10	6.40	0.228	0.240	0.252
E	6.30	6.60	6.90	0.248	0.260	0.272
F	2.655	2.905	3.155	0.105	0.114	0.124
G		4.54			0.179	
H	9.90	10.20	10.50	0.390	0.402	0.413
L2		2.00			0.079	

**TAPE AND REEL SPECIFICATION-TO-252**

Ref.	Dimensions	
	Millimeters	Inches
W	16.00±0.30	0.630±0.012
E	1.75±0.10	0.069±0.004
F	7.50±0.10	0.295±0.004
D0	1.50±0.10	0.059±0.004
D1	1.50±0.10	0.059±0.004
P0	4.00±0.10	0.157±0.004
10P0	40.00±0.20	1.575±0.008
P1	8.00±0.10	0.315±0.004
P2	2.00±0.10	0.079±0.004
A0	6.96±0.10	0.274±0.004
B0	10.49±0.10	0.413±0.004
K0	2.77±0.10	0.109±0.004
t	0.30±0.05	0.012±0.002
A	330.00±2.00	12.992±0.079
T1	16.50 ^{+2.00} _{-1.00}	0.650 ^{+0.079} _{-0.039}
B	96.70±1.00	3.807±0.039
T2	2.20±0.20	0.087±0.008
C	13.00±0.30	0.512±0.012
D	2.30±0.30	0.091±0.012

PACKAGE INFORMATION-TO-252

PART No.	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
JSPK1045ACT-CO	0.31	80	20,000
PART No.	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)
JSPK1045ACT-CO-R	0.31	3,000	30,000



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