



JSPE2045ACT-CO

20A Schottky Barrier Rectifier

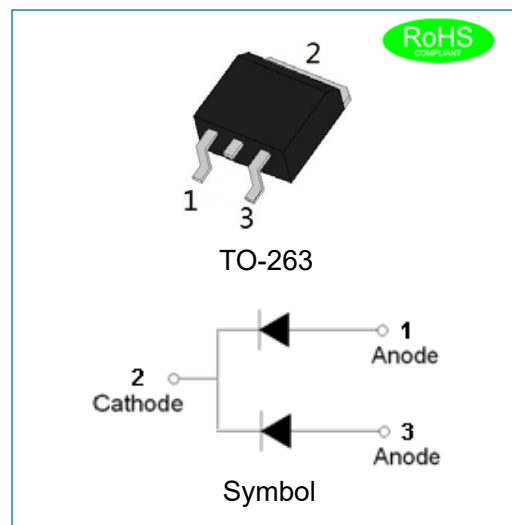
Rev.0.1

DESCRIPTION

- ✧ Plastic package has underwriters laboratories flammability classification 94V-0
- ✧ For surface mounted applications in order to optimize board space
- ✧ 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-263 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002



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

Parameter	Symbol	JSPE2045ACT-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	$I_{F(AV)}$	20	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	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.)

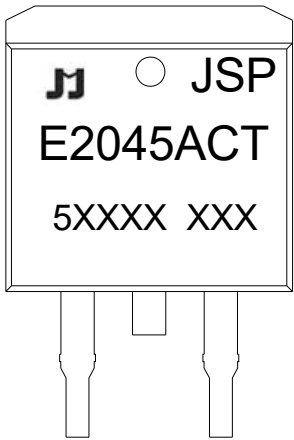
Parameter		Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F=10A$	V_F	-	-	0.65	V
Reverse current	$V_R=45V, T_A=25^\circ C$	I_R	-	-	0.1	mA
	$V_R=45V, T_A=100^\circ C$		-	-	40	
Junction capacitance	$V_R=4.0V, f=1MHz$	C_J	-	700	-	pF

THERMAL RESISTANCES

Symbol	Parameter	JSPE2045ACT-CO	Unit
$R_{th(j-c)}$	Thermal resistances from junction to case	2.0	°C/W



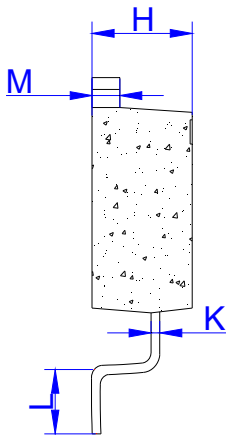
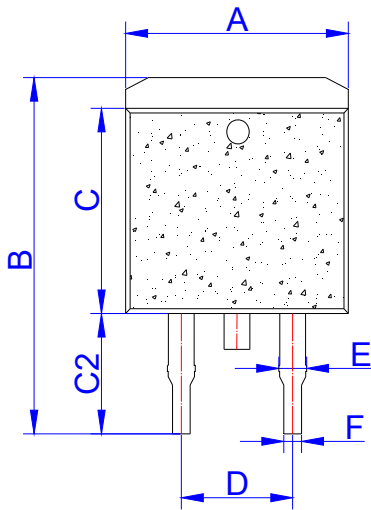
MARKING



JS	Schottky Barrier Rectifier
P	Planar technology
E	Package: TO-263
20	$I_{F(AV)}=20A$
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

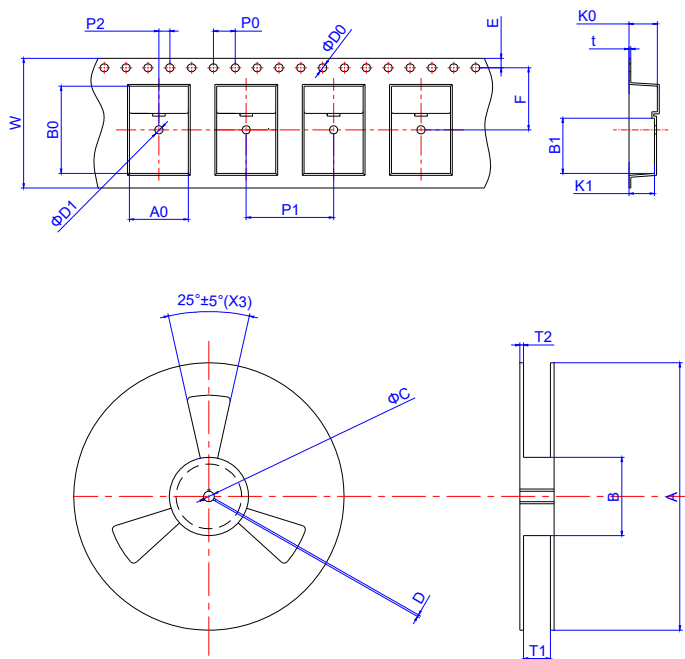


TO-263

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	9.91	10.16	10.41	0.390	0.400	0.410
B	14.65	15.10	15.55	0.577	0.594	0.612
C	8.50	8.70	8.90	0.335	0.343	0.350
C2	4.70	5.10	5.50	0.185	0.201	0.217
D		5.08			0.200	
E	1.12	1.27	1.42	0.044	0.050	0.056
F	0.66	0.81	0.96	0.026	0.032	0.038
H	4.32	4.57	4.82	0.170	0.180	0.190
K	0.28	0.40	0.52	0.011	0.016	0.020
L		3.00			0.118	
M	1.12	1.27	1.42	0.044	0.050	0.056



TAPE AND REEL SPECIFICATION-TO-263



Ref.	Dimensions	
	Millimeters	Inches
W	24.00±0.30	0.945±0.012
E	1.75±0.10	0.069±0.004
F	11.50±0.10	0.453±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	16.00±0.10	0.630±0.004
P2	2.00±0.10	0.079±0.004
A0	10.80±0.10	0.425±0.004
B0	16.13±0.10	0.635±0.004
B1	10.24±0.20	0.403±0.004
K0	5.21±0.10	0.205±0.004
K1	4.70±0.10	0.185±0.004
t	0.35±0.05	0.014±0.002
A	330.00±2.00	12.992±0.079
T1	24.50 ^{+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-263

PART No.	UNIT WEIGHT (g/PCS) TYP	TUBE (PCS)	PER CARTON (PCS)
JSPE2045ACT-CO	1.41	50	5,000
PART No.	UNIT WEIGHT (g/PCS) TYP	REEL (PCS)	PER CARTON (PCS)
JSPE2045ACT-CO-R	1.41	800	8,000



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