



JECR0506K

EPI HYPERFAST SOFT RECOVERY RECTIFIER

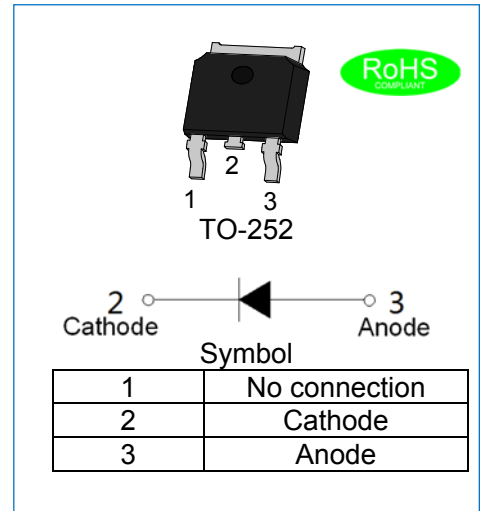
Rev.1.0

DESCRIPTION

- ✧ Plastic package has underwriters laboratory flammability classification 94V-0
- ✧ Lead free in comply with EU RoHS 2011/65/EU directives
- ✧ Low reverse leakage current
- ✧ Hyperfast recovery time and soft recovery characteristics
- ✧ Low recovery loss

MECHANICAL DATA

- ✧ Case: TO-252 molded plastic
- ✧ Terminals: Solder plated, solderable per J-STD-002
- ✧ Weight: 0.329 gram



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

Parameter	Symbol	JECR0506K	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	600	V
Maximum RMS voltage	V_{RMS}	420	V
Maximum DC blocking voltage	V_{DC}	600	V
Maximum average forward rectified current at $T_C=133^{\circ}C$	$I_{F(AV)}$	5	A
Peak forward surge current: 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	65	A
Peak forward surge current: 10ms single half sine-wave superimposed on rated load		60	
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +175	°C

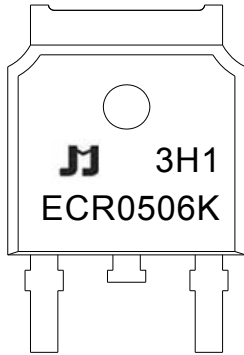
ELECTRICAL CHARACTERISTICS(Rating at 25°C ambient temperature unless otherwise specified.)

Parameter		Symbol	Min.	Typ.	Max.	Unit
Forward voltage @ $I_F=5A$	$T_j=25^\circ C$	V_F	-	2.5	3.3	V
	$T_j=150^\circ C$		-	1.4	2.1	
DC reverse current at rated DC blocking voltage	$T_j=25^\circ C$	I_R	-	-	5	μA
	$T_j=150^\circ C$		-	-	200	
Reverse recovery time	$I_F=1A, V_R=30V,$ $di/dt=200A/\mu s, T_j=25^\circ C$	t_{rr}	-	11	-	ns
	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=25^\circ C$		-	23	-	
	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=125^\circ C$		-	28	-	
	$I_F=5A, V_R=400V,$ $di/dt=500A/\mu s, T_j=25^\circ C$		-	13	25	
Peak reverse recovery current	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=25^\circ C$	I_{RM}	-	1.7	-	A
	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=125^\circ C$		-	3.2	-	
Recovered charge	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=25^\circ C$	Q_r	-	19	-	nC
	$I_F=5A, V_R=200V,$ $di/dt=200A/\mu s, T_j=125^\circ C$		-	45	-	

THERMAL RESISTANCES

Symbol	Parameter	Min.	Typ.	Max.	Unit
$R_{th(j-c)}$	Thermal resistance from junction to case	-	-	14	$^\circ C/W$

MARKING



ECR	EPI Hyperfast Recovery Rectifier
05	$I_{F(AV)}=5A$
06	$V_{RRM}:600V$
K	Package: TO-252

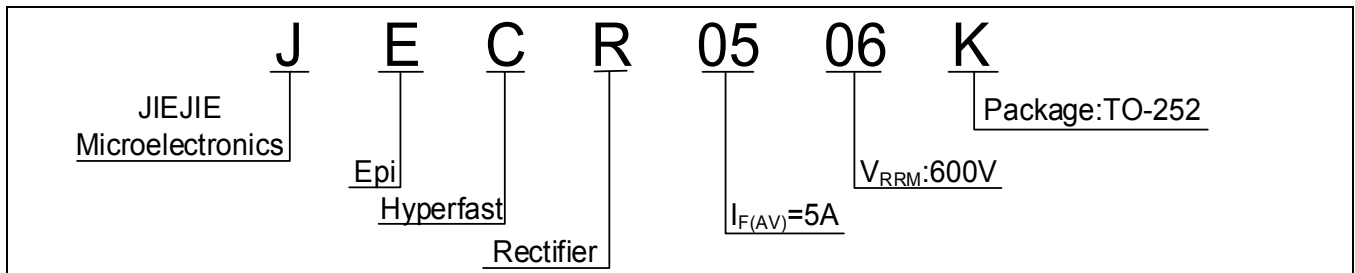
xH1: Month, 1、2、3 ~ 9、A、B、C

3x1:

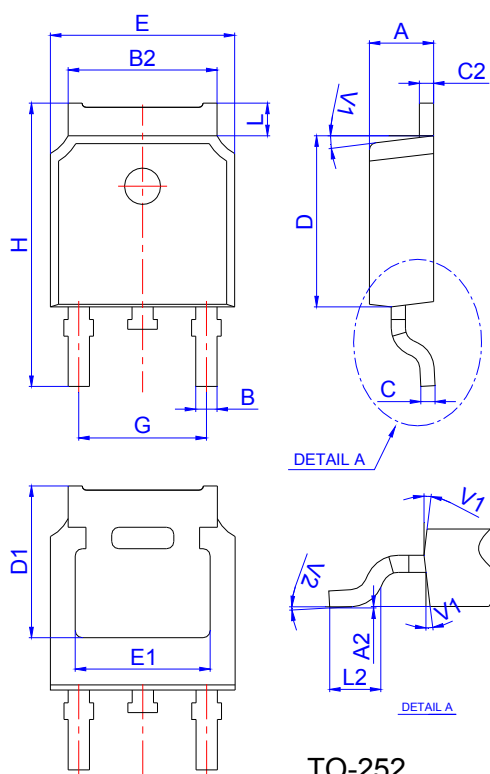
2018	2019	2020	2021	2022	2023	2024
H	I	J	K	L	M	N
2025	2026	2027	2028	2029	2030	...
O	P	Q	R	S	T	...

3Hx: Batch number

ORDERING INFORMATION

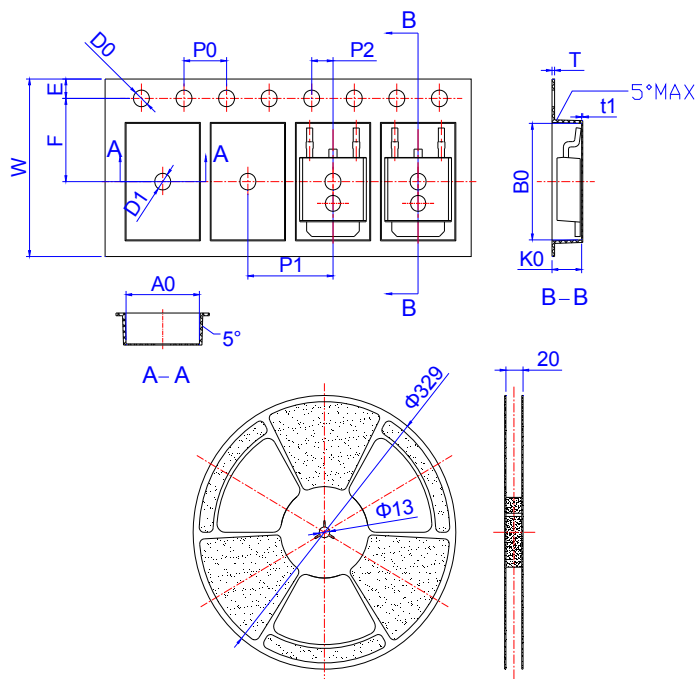


PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.10		2.50	0.083		0.098
A2	0		0.10	0		0.004
B	0.66		0.86	0.026		0.034
B2	5.18		5.48	0.202		0.216
C	0.40		0.60	0.016		0.024
C2	0.44		0.58	0.017		0.023
D	5.90		6.30	0.232		0.248
D1	5.30REF			0.209REF		
E	6.40		6.80	0.252		0.268
E1	4.63			0.182		
G	4.47		4.67	0.176		0.184
H	9.50		10.70	0.374		0.421
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°

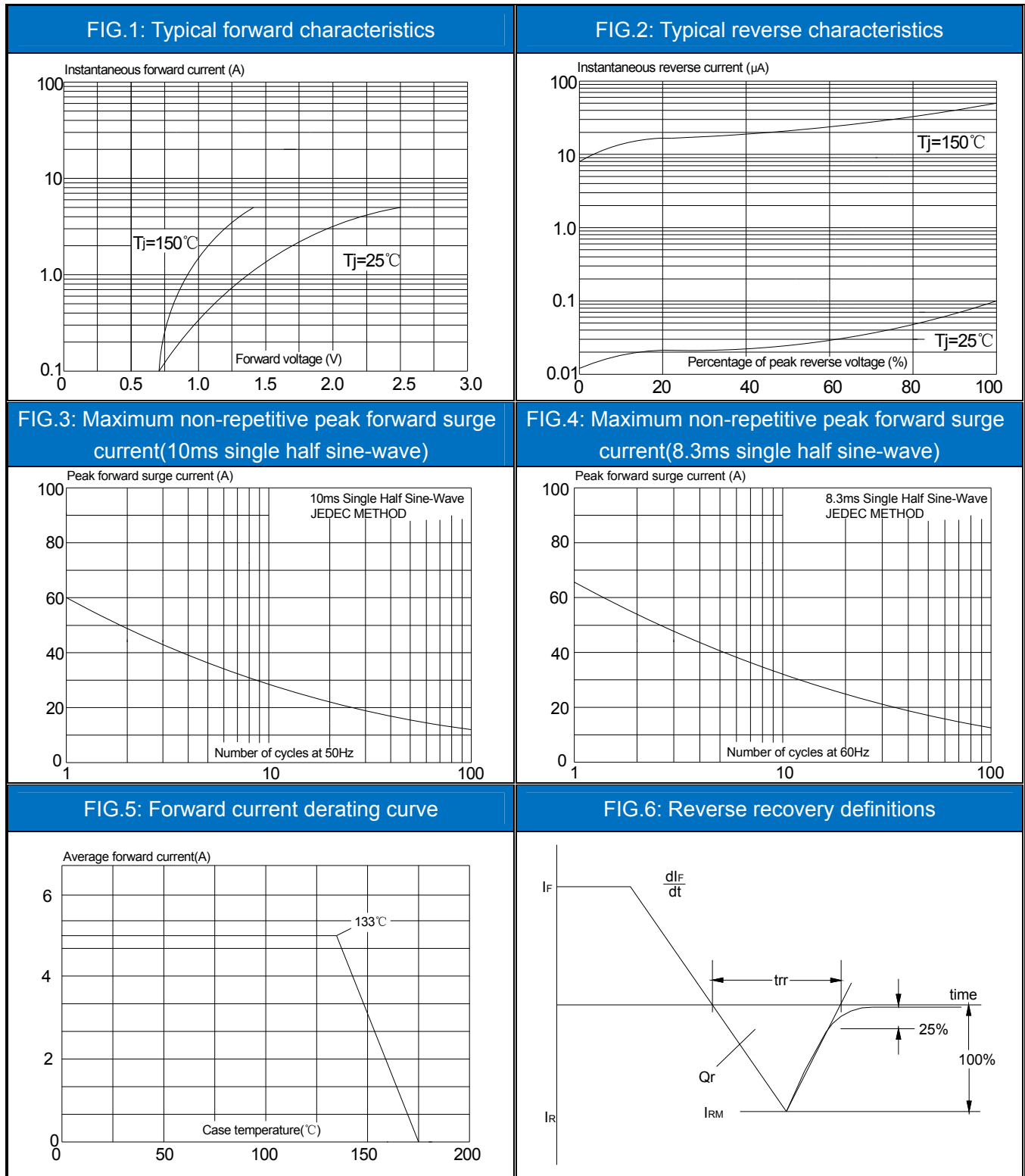
REEL SPECIFICATION -TO-252



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
W	15.90	16.00	16.10	0.626	0.630	0.634
E	1.65	1.75	1.85	0.065	0.069	0.073
F	7.40	7.50	7.60	0.291	0.295	0.299
D0	1.40	1.50	1.60	0.055	0.059	0.063
D1	1.40	1.50	1.60	0.055	0.059	0.063
P0	3.90	4.00	4.10	0.154	0.157	0.161
P1	7.90	8.00	8.10	0.311	0.315	0.319
P2	1.90	2.00	2.10	0.075	0.079	0.083
A0	6.85	6.90	7.00	0.270	0.271	0.276
B0	10.45	10.50	10.60	0.411	0.413	0.417
K0	2.68	2.78	2.88	0.105	0.109	0.113
T	0.24		0.27	0.009		0.011
t1	0.10			0.004		
10P0	39.80	40.00	40.20	1.567	1.575	1.583

OUTLINE	UNIT WEIGHT (g/PCS) typ.	REEL (PCS)	PER CARTON (PCS)	TAPE & REEL
TAPING	0.329	2,500	25,000	13inch

CHARACTERISTICS CURVE




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