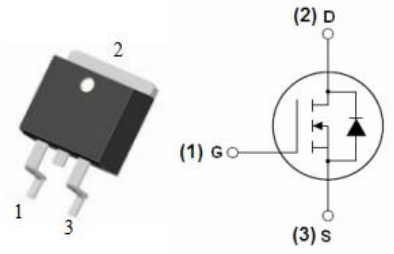
isc N-Channel MOSFET Transistor R6024KNJ

• FEATURES

- Static drain-source on-resistance: $R_{DS}(on) \leqslant 0.165\Omega$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



TO-263 Package

• APPLICATIONS

- Switching Voltage Regulators

• ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{DSS}	Drain-Source Voltage	600	V
V_{GS}	Gate-Source Voltage	±20	V
I_D	Drain Current-Continuous	24	A
I_{DM}	Drain Current-Single Pulsed	72	A
P_D	Total Dissipation @T_C=25℃	245	W
T_j T_{stg}	Operating Junction And Storage Temperature	-55~150	℃

• THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th(j-c)}$	Channel-to-case thermal resistance	0.51	℃/W

• ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
BV_{DSS}	Drain-Source Breakdown Voltage	V_{GS}=0V; I_D= 1mA	600		V
$V_{GS(th)}$	Gate Threshold Voltage	V_{DS}=V_{GS}; I_D= 0.36mA	3	5	V
$R_{DS(on)}$	Drain-Source On-Resistance	V_{GS}= 10V; I_D= 11.3A		0.165	Ω
I_{GSS}	Gate-Source Leakage Current	V_{GS}= ±20V		±100	nA
I_{DSS}	Drain-Source Leakage Current	V_{DS}= 600V; V_{GS}= 0V		100	μA
V_{SD}	Diode forward voltage	I_S=24A, V_{GS} = 0V		1.5	V

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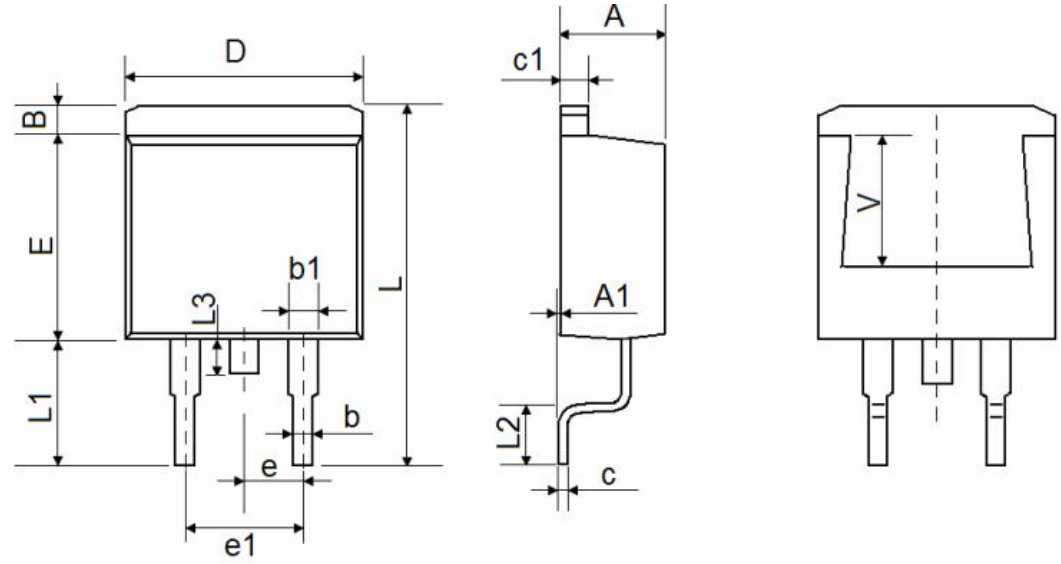
TO-263 Package Outline



Symbol	Dimensions In Millimeters		Dimensions In Inches	
	Min.	Max.	Min.	Max.
A	4.470	4.670	0.176	0.184
A1	0.000	0.150	0.000	0.006
B	1.170	1.370	0.046	0.054
b	0.710	0.910	0.028	0.036
b1	1.170	1.370	0.046	0.054
c	0.310	0.530	0.012	0.021
c1	1.170	1.370	0.046	0.054
D	10.010	10.310	0.394	0.406
E	8.500	8.900	0.335	0.350
e	2.540 TYP.		0.100 TYP.	
e1	4.980	5.180	0.196	0.204
L	15.050	15.450	0.593	0.608
L1	5.080	5.480	0.200	0.216
L2	2.340	2.740	0.092	0.108
L3	1.300	1.700	0.051	0.067
V	5.600 REF		0.220 REF	