

**isc Silicon NPN Power Transistor**

**3DA752**

**DESCRIPTION**

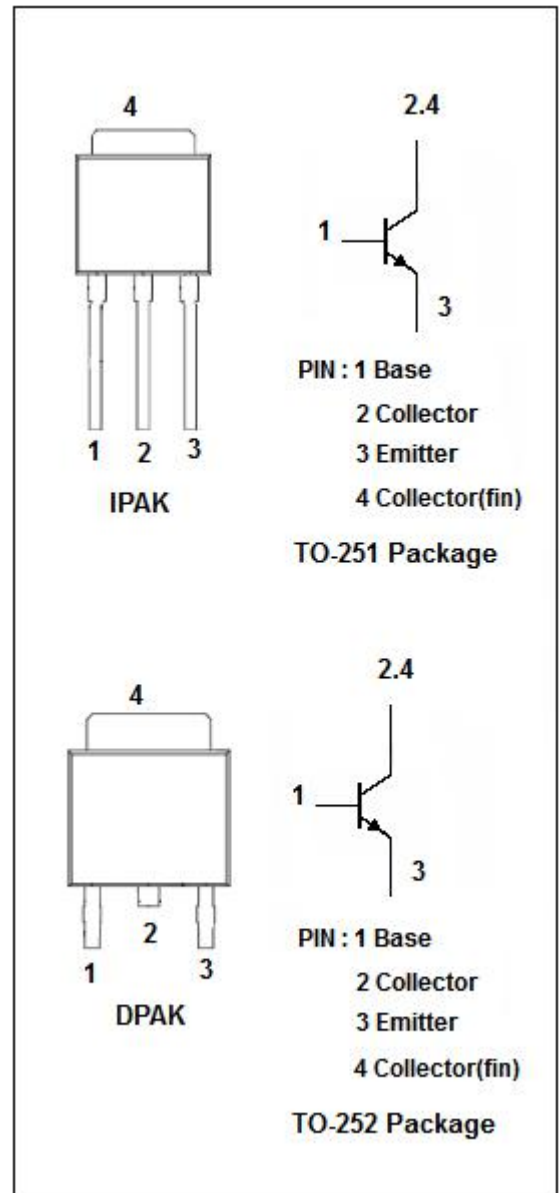
- LOW  $V_{CE(sat)}$
- Small and slim package
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Power dissipation

**ABSOLUTE MAXIMUM RATINGS( $T_a=25^{\circ}C$ )**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	40	V
$V_{CEO}$	Collector-Emitter Voltage	30	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	2	A
$P_C$	Collector Power Dissipation	1.2	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



**isc Silicon NPN Power Transistor****3DA752****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 2A; I <sub>B</sub> = 200mA			0.8	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 30mA			2.0	V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 100μA; I <sub>B</sub> = 0	40			V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; I <sub>B</sub> = 0	30			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 40V; I <sub>E</sub> = 0			0.1	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0			0.1	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 2V	100		400	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f= 1.0MHz		13		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 500mA; V <sub>CE</sub> = 5V		120		MHz

◆ **h<sub>FE</sub> Classifications**

O	Y	G
100-200	160-320	200-400

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Outline Drawing

