

isc Silicon NPN Power Transistor

2SD1758

DESCRIPTION

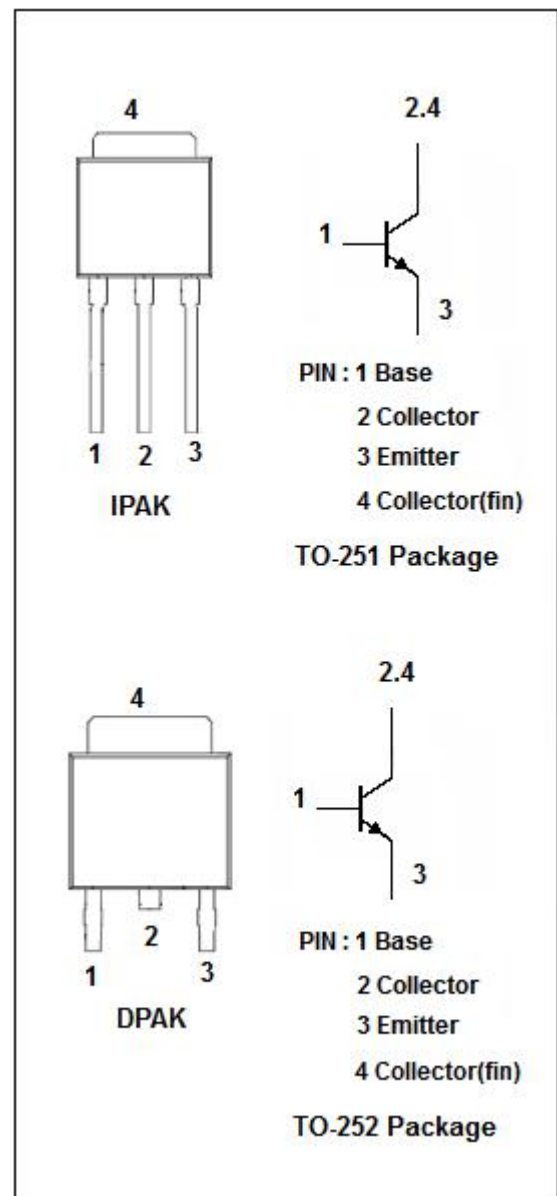
- Large current capacitance
- Low $V_{ce(sat)}$
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- DC/DC converter, relay drivers, lamp drivers, motor drivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	32	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**2SD1758****ELECTRICAL CHARACTERISTICS** $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=200\text{mA}$			0.8	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	32			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=50\mu\text{A}; I_C=0$	5			V
I_{CBO}	Collector Cutoff Current	$V_{CB}=20\text{V}; I_E=0$			1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	μA
h_{FE}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=3\text{V}$	82		390	
C_{OB}	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f=1.0\text{MHz}$		30		pF
f_T	Current-Gain—Bandwidth Product	$I_C=50\text{mA}; V_{CE}=5\text{V}$		100		MHz

◆ h_{FE} Classifications

P	Q	R
82-180	120-270	180-390

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Outline Drawing

